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THE

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AND

JOURNAL

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(*NEW SERIES.*)

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[1st of APRIL to 30th of SEPTEMBER,]

1834.

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EDITED

By JAMES JOHNSON, M.D.

PHYSICIAN EXTRAORDINARY TO THE KING,

AND

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THE

Medico-Chirurgical Review,

No. XLI.

[NO. 1 OF A DECENNIAL SERIES.]

APRIL 1, TO JULY 1, 1834.

PATHOLOGICAL AND SURGICAL OBSERVATIONS ON THE DISEASES OF THE JOINTS. By *B. C. Brodie*, V.P.R.S. Serjeant-Surgeon to the King, and Surgeon to St. George's Hospital. Third Edition, with Alterations and Additions. Octavo, pp. 344. London, 1834.

THE first edition of this work appeared, we believe, in the year 1818—the second in the year 1822—and the third is now brought before the public. Mr. Brodie informs us, in the preface to this edition, that it is not a mere republication of those which have preceded it. He observes that there are not more than two chapters which appear exactly in their former shape, and some of them are so altered that they bear but little resemblance to their originals.

We are led to offer a complete analysis of this, although an established work, on several accounts; because it is one of the most striking examples in medical literature of inductive reasoning—because the profession do not seem to be as well acquainted as they should be with its doctrines and its facts—and because we have Mr. Brodie's word for the novelty or re-arrangement of considerable portions of it.

We have said that the work is a striking specimen of inductive reasoning. We have heard this advanced as an objection. It has been urged that it displays no ornaments of diction—no grace of fancy; that all is straight and level, and uninteresting as a road in France. It is true that the charm which breathes through the writings of Pott, and the fire which blazes in the pages of John Bell, do not wait on the cautious and exact demonstration of Mr. Brodie. But something more permanently useful is there—the steady pursuit and the sure acquisition of philosophical truth. Those who quarrel with the works of Mr. Brodie, turn with disgust from demonstrative reasoning; consider laborious and patient observation as the drudgery of a sordid mind, rigid deduction as the fetter of a mechanical one. They wear in their soul, if not upon their lips, the sneer of Gibbon at "the patient and sure-footed mule of the Alps." We do not purpose to eulogize nor to defend inductive reasoning, for it needs neither eulogy nor defence. We cannot refrain from deploring the absence of it in the great majority of medical works. The journalist has too frequent occasions of observing how loose and unconnected their texture is, how discreditable to the education and the capacity of the author, how derogatory to the philosophical character of the profession. It would be painful and invidious to adduce examples

from the writings of those who are not of the οἱ πολλοι, but who have gained the honours and the dignities among us. This reflection leads us to single out the work of Mr. Brodie, and, by laying it fully before our readers, to inculcate its principles, evince our admiration of its execution, and hold up both to the surgical and medical world as a valuable model.

It may seem surprising that only two editions of a work so important should have been consumed in the period of sixteen years. The cause of this will be chiefly found in the prevalent unwillingness of the profession to *study* works of so grave a character. But we trust that the more complete education, medical and general, that our youth receive, with the wide diffusion of useful knowledge and cultivation of the judgment and the reason, will improve the taste of those who write and of those who read. We hope the profession will not allow twelve years to elapse before they require another edition of Mr. Brodie's treatise. It demands a moderate acquaintance only with surgical authors and with surgical practitioners, to discover that they are either unconscious or careless of the great improvements in pathology and treatment which the treatise in question contains. In recent books we often find the same vague ideas of spina ventosa, and white swelling, and scrofulous joints, which clouded the surgical horizon previous to the publication of Mr. Brodie's researches. In practice we constantly observe a lamentable ignorance in the management and diagnosis of diseases of the joints. Scarce an author appreciates to the due extent Mr. Brodie's labours—scarce a surgeon appears to be perfectly conversant with his practical improvements. Confusion obscures the pages of the one, ignorance directs the hand of the other.

On these accounts, then, we are led to offer a methodical analysis of the present edition of Mr. Brodie's work. Independently of the practical matter it contains, it is calculated to form and to improve the taste of the surgical inquirer. And we feel convinced that so many are unacquainted, or imperfectly acquainted, with what has been effected by the author, that we confer an essential boon upon the public in drawing its attention as forcibly as possible to his facts and his conclusions.*

The work consists of ten chapters, with an appendix principally dedicated to a criticism of the paper published by Mr. Key in the last volume of the Medico-chirurgical Transactions. The subjects considered in those chapters are—Inflammation of the Synovial Membranes of Joints—Ulceration of the Synovial Membrane—a Morbid Alteration of Structure of the Synovial Membrane—Ulceration of the Articular Cartilage—a Scrophulous Disease of the Joints, having its origin in the Cancellous Structure of the Bones—Caries of the Spine—Tumors and Loose Cartilages in the Cavities of the Joints—Malignant Diseases of the Joints—some other Diseases of the Joints—Inflammation of the Bursæ Mucosæ. It must be owned that this enumeration of affections displays an ample field for accuracy of diagnosis, and appropriate application of treatment. We have already stated that our notice will be strictly analytical.

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* As this article was written subsequently to the completion of that upon Mr. Wickham's book, some repetitions may be noticed in the one of what the reader may have perused in the last.

In a brief introduction, Mr. Brodie alludes to the reasons which induced him to select for investigation the diseases of the joints. Perhaps the following exercised the greatest weight with himself, and will form a satisfactory apology to the profession.

"They have scarcely met with the attention which they merit from former pathologists. The terms, white swellings, scrophulous joints, &c. have been used without any well-defined meaning, and almost indiscriminately; so that the same name has been frequently applied to different diseases, and the same disease has been distinguished by different appellations. Confusion with respect to diagnosis always gives rise to a corresponding confusion with respect to the employment of remedies; and hence I was induced to hope, that, if it were possible to improve our pathological knowledge of the diseases to which I have alluded, this might lead, not indeed to the discovery of new methods of treatment, but to a more judicious and scientific application of those which are already known, and a consequent improvement of chirurgical practice." 2.

I. On Inflammation of the Synovial Membranes of Joints.

Mr. Brodie remarks, that the adipose membrane belonging to the joints may be inflamed, and that the ligaments may be the objects of primary disease. But the malady, in either case, is too rare or too vague to form a subject of distinct consideration. The synovial membrane, like other vascular organs or parts, is frequently diseased. Mr. Brodie considers in order the morbid anatomy, the causes and symptoms, and the treatment of inflamed synovial membrane.

He observes that cases occasionally, though rarely, occur, in which a joint is swollen from a preternatural quantity of fluid collected in its cavity, independently of pain or inflammation. This passive effusion may be compared to hydrocele, and has been not improperly denominated "hydrops articuli," and "hydrarthrus." But usually the swelling is attended with pain and inflammation, and is dependent on increased secretion from the surface of the synovial membrane, occasioned by the latter. In some instances, while there is still pain and inflammation in the joint, the fluid is felt indistinctly, as if a considerable mass of soft substance lay over it. Often, when the inflammation has subsided, and the fluid is no longer to be felt, the joint remains swollen and stiff; painful, when bent or extended beyond a certain point, and liable to a return of inflammation from slight causes.

Omitting the cases whose dissections explain the preceding observations and confirm the following, we pass to their summary expression. Inflammation of the synovial membrane occasions these effects:—1st, a preternatural secretion of synovia; 2dly, effusion of coagulated lymph into the cavity of the joint; 3dly, in other cases, a thickening of the membrane; a conversion of it into a gristly substance; and an effusion of coagulated lymph, and probably of serum, into the cellular texture, by which it is connected to the external parts. In other cases, Mr. Brodie has found reason to believe that the inflammation had produced adhesions, more or less extensive, of the reflected folds of the membrane to each other. He has also observed occasionally, in dissection, such partial adhesions as might reasonably be supposed to have arisen from inflammation at some former period.

In one case related, the cartilage adhered to the bone less firmly than usual at the edge of one of the condyles of the femur. In another, the

cartilage covering that portion of the articulating extremity of the femur which corresponds to the patella, presented in one spot an irregular surface, as if it had been partially absorbed, but not to a sufficient extent to expose the surface of the bone below. Mr. Brodie supposes that these were the effects of the greater disease of the synovial membrane.

"In another case, in which the patient, having recovered of inflammation of the synovial membrane, died several months afterwards of another disease, I found, on dissection, that the greater part of the cartilage of the patella, and a small portion of that covering the condyles of the femur, had disappeared, and that its place was occupied by a thin yellow membranous substance adhering to the bone, and forming a distinct cicatrix. I have known many cases in which there was extensive destruction of the cartilages of a joint by ulceration, manifestly arising from neglected inflammation of the synovial membrane. That this should happen, is no more remarkable than that ulcer of the cornea should occasionally be induced by inflammation of the *tunica conjunctiva* of the eye. At the same time, I believe it will be found, in the majority of cases of caries of the joints, that the disease has begun in the harder textures, and that the inflammation of the synovial membrane by which it is accompanied, is a secondary affection, the consequence of the formation of an abscess in the articular cavity." 13.

Inflammation of the synovial membrane occasionally terminates in suppuration, without having induced ulceration of either the soft or the hard textures of the joints. Mr. Brodie has found this after injury. It is not uncommon after accidents or operations, and constitutes one form of the purulent deposites. We have seen it after fever, and in a case of aneurism of the arch of the aorta. In one instance of articular deposite, Mr. Arnott found the cavity of the knee-joint filled with a tolerably thick pus, of an uniformly reddish colour, as if from an admixture of blood. Mr. Brodie relates a case of what appears to have been rheumatic inflammation of the joints and of the pericardium, in which a similar discoloration was remarked. The synovial membrane of the right knee was full of a dark-coloured fluid; not purulent, but having the appearance of a thick synovia, tinged with blood. The synovial membrane was every where of a red colour, as if stained by this secretion, and the cartilages of the joint had the appearance of having been stained in the same manner. There were some small extravasations of blood in the cellular membrane external to the joint. Those who are acquainted with the morbid anatomy of the heart and lungs are aware, that effusions of bloody serum in the pleura and the pericardium are by no means rare. We have frequently witnessed examples of both. M. Laennec has devoted a chapter to the "hæmorrhagic pleurisy." Probably the bloody colour of the pus, in Mr. Arnott's case—of the synovia in Mr. Brodie's—and of the serum in those to which we have adverted, are analogous in principle.

We arrive at the causes and symptoms of inflammation of the synovial membrane. This may occur as a primary affection, or be consequent to inflammation of some of the other textures of the joint. At present, Mr. Brodie treats of it as a primary affection. It very seldom attacks young children—becomes less rare about the age of puberty—and is very frequent in adults. This is an important distinctive circumstance. It may constitute a symptom or effect of rheumatism, or gout—of syphilis—of abuse of mercury. But, in these cases, the disease, for the most part, is not very severe; it occasions a

preternatural secretion of synovia; but does not, in general, terminate in the effusion of coagulated lymph, or in thickening of the inflamed membrane. Sometimes it attacks several joints at the same instant, and even extends to the synovial membranes, which constitute the bursæ mucosæ and sheaths of the tendons. At other times it leaves one part to attack another, and different joints are affected in succession. In other cases, the disease is entirely local—the result of an injury, of cold, or of no very evident cause. Cold is, perhaps, the most frequent agent; and on this account, the knee is more commonly attacked than the shoulder or the hip. Where the inflammation is thus confined to a single joint, it is more probable that it will assume a severe character, and that it may be of long duration. It is likely to leave the joint with its functions more or less impaired; and occasionally terminates in total destruction. The complaint is most usually of a chronic kind, impairing, but not altogether destroying, the functions of the joint. If not relieved in the first instance by judicious treatment, it may continue, with occasional recoveries and relapses, for months, or even years.

The symptoms are as follow; and an accurate acquaintance with them is indispensably required.

At first the patient experiences pain in the joint, which, although affecting the whole articulation, is often referred principally to one spot. The pain usually increases for the first week or ten days, when it has attained its acmé. Sometimes even now it is inconsiderable—at others it is distressing.

When the pain has existed for one or two days, the joint may be observed to be swollen. At first this depends on a collection of fluid, which, in the superficial joints, may be felt on examination to undulate. When the inflammation has existed for some time, the fluctuation is less distinct, in consequence of the thickening of the synovial membrane. In proportion as the swelling consists of solid substance, the natural mobility of the joint is impaired.

"The form of the swelling deserves notice. It is not that of the articulating ends of the bones, and, therefore, it differs from the natural form of the joint. The swelling arises chiefly from the distended state of the synovial membrane, and hence its figure depends, in great measure, on the situation of the ligaments and tendons, which resist it in certain directions, and allow it to take place in others. Thus, when the knee is affected, the swelling is principally observable on the anterior and lower part of the thigh, under the extensor muscles, where there is only a yielding cellular structure between these muscles and the bone. It is also considerable in the spaces between the ligament of the patella and the lateral ligaments; the fluid collected in the cavity causing the fatty substance to protrude in this situation, where the resistance of the external parts is less than elsewhere. In the elbow, the swelling is principally observable in the posterior part of the arm, above the olecranon, and under the extensor muscles of the forearm; and in the ancle it shows itself on each side, in the space between the lateral ligaments and the tendons, which are situated on the anterior part. In like manner, in other joints, the figure of the swelling whether it arises from fluid alone, or joined with solid substance, depends in great measure on the ligaments and tendons in the neighbourhood, and on the degree of resistance which they afford: and these circumstances, though apparently trifling, deserve our attention, as they enable us more readily to form our diagnosis." 20.

Circumstances connected with particular joints deserve to be adverted to. The disease is less frequent in the hip and shoulder than in the superficial

joints; the fluctuation of fluid is not perceptible, but the existence of swelling beneath the muscles is sufficiently distinct.

"When the shoulder is affected there is pain accompanied with a general tumefaction of the part; and, in most instances, if the hand be placed upon it, at the same time that the limb is moved, a crackling sensation is observed, which probably arises from an effusion of fluid into the cells of the neighbouring bursæ. After some time the swelling subsides, or the joint may even appear to be smaller than natural, in consequence of the muscles, especially the deltoid, having become wasted from want of exercise.

When inflammation attacks the synovial membrane of the hip, there is an evident fulness of the groin, and, in some instances, of the nates also. There is pain which is referred, not to the knee, as in cases of ulceration of the cartilages, but to the upper and inner part of the thigh, immediately below the origin of the *adductor longus* muscles. The pain is aggravated when the patient stands erect, and allows the limb to hang, without the foot resting on the ground. It is also increased by motion, but not by pressing the articulating surfaces against each other, so that it does not prevent the weight of the body being borne by the affected limb. The pain is often very severe, yet it does not amount to that excruciating sensation which exhausts the powers and spirits of the patient in whom the cartilages of the hip are ulcerated." 21.

Mr. Brodie cannot doubt, from cases which have fallen under his observation, that inflammation of the synovial membrane of the hip occasionally terminates in dislocation of that joint, the round ligament being separated from one of its attachments by ulceration.

After inflammation of the synovial membrane has subsided, the fluid is absorbed, and, in some instances, the joint regains its natural figure and mobility; but, in other cases, stiffness and swelling remain. Sometimes the swelling retains the form it assumed whilst fluid was contained within the joint; this probably depends on the inner surface of the synovial membrane being lined with a thick layer of coagulable lymph. At other times, the swelling has nearly the natural form of the joint, when, perhaps, the synovial membrane is thickened. In whatever way enlargement may be perpetuated, the patient is very liable to a recurrence of the inflammation from exposure to cold, unusual exercise, or indeed, without any evident reason. When the synovial membrane continues thickened, it occasionally happens, that not only a certain degree of inflammation still continues to linger in the part, but that the morbid action invades the other tissues, and terminates in ulceration of the cartilages and suppuration in the joint. In such a case, the history must form the foundation of our diagnosis, and amputation is generally the only remedy.

Sometimes inflammation of the synovial membrane is more acute than that which has been drawn. The swelling takes place immediately after, or at the same instant with, the first attack of pain; there is redness of the skin: the pain is more severe; and it is so much aggravated by the motion of the parts, that the patient keeps the joint constantly in the same position, and usually in an intermediate state between that of flexion and extension. In addition to these symptoms, there is more or less of symptomatic fever of the inflammatory kind. In a few days the disease, if left to itself, assumes the chronic form; or, perhaps, under proper treatment, it subsides altogether. The boundaries of acute and chronic inflammation are too ill defined

to admit of accurate description. The intermediate varieties of disease must be left to the recognition of the practical and the observant surgeon.

Inflammation of the synovial membrane is modified, as might be imagined, by the state of the patient's constitution. Where the disease is strictly local, it is generally more severe.

In syphilitic cases inflammation of the synovial membrane occurs under two conditions—in the early stage of syphilis, and usually in combination with the papular eruption, when there is little pain, inconsiderable effusion, and, after the absorption of the latter, restoration of the joint to nearly its natural condition—in an advanced stage combined with nodes, productive of much more inconvenience to the patient, more difficult to be relieved, leaving the synovial membrane thickened and the joint enlarged.

We have witnessed cases which do not quite tally with the foregoing description. Synovial inflammation has existed in combination with the papular eruption, with psoriasis, and with tubercle—it has been very acute, occasioning much pain, and recurring and disappearing under vigorous treatment. In combination with nodes, or at least with the series of cachectic symptoms that are commonly, but perhaps improperly, styled an advanced stage of syphilis, it has been unattended with acute symptoms, and neither demanded nor supported strong remedial measures.

In cases of rheumatism, continues Mr. Brodie, several joints are simultaneously or successively affected, and the synovial membranes of the bursæ mucosæ and tendinous sheaths are frequently involved. There is usually a good deal of pain and swelling, and the joints are often left stiff and enlarged afterwards. Where the inflammation is connected with gout, the pain is generally out of all proportion to the other symptoms of inflammation; and the patient feels as if the joint were in a vice, or forcibly torn open.

"There is a remarkable, yet not uncommon form of the disease, which may be considered as bearing a relation to both gout and rheumatism, but differing from them, nevertheless, in some essential circumstances. The synovial membrane becomes thickened, so as to occasion considerable enlargement of the joints, and stiffness, there being at the same time but little disposition to the effusion of fluid. In the first instance, the disease is often confined to the fingers; afterwards it extends to the knees and wrists; perhaps to nearly all the joints of the body. Throughout its whole course, the patient complains of but little pain; but he suffers, nevertheless, great inconvenience, in consequence of the gradually increasing rigidity of the joints, and the number which are affected in succession. The progress of the disease is usually very slow, and many years may elapse before it reaches what may be regarded as its most advanced stage. Sometimes after having reached a certain point, it remains stationary, or even some degree of amendment may take place: I do not, however, remember any case in which it could be said that an actual cure had been effected. The individuals who suffer in the way which has been described, are, for the most part, those belonging to the higher classes of society, taking but little exercise, and leading luxurious lives: but there are exceptions to this rule, and the disease occasionally occurs in hospital practice; in men, and even in females, of active and temperate habits." 27.

We now arrive at an important section—on the treatment of the disease.

In common acute inflammation of the synovial membrane, leeches and the ordinary antiphlogistic treatment are required. Where tension exists warm applications are most grateful, but otherwise cold evaporating lotions appear to produce a better effect.

For the chronic inflammation, quietude, local abstraction of blood, especially by cupping, with cold applications in the intervals of its employment—and blisters when the inflammation has been in a great measure subdued. Mr. Brodie prefers frequent blisters to one kept open. They should be large; if the joint is deeply seated they may be placed as near to it as possible: if superficial it is well to apply them at a little distance from it. The surgeon should remember that in this, as in other instances of inflammation of the deeper parts, blisters are improper until blood has been abstracted; that is, they are inapplicable to an early stage of inflammation. Mr. Brodie alludes to another remedy.

"When I have seen the knee joint much distended, I have, in some instances, ventured to evacuate the fluid by puncture; and the following is the result of my experience as to the effects of this operation:—

1st. In a thin person, if a few punctures be made with an instrument, a very little broader than a couching needle, by means of an exhausted cupping-glass applied over the punctures, a large quantity of fluid may be easily abstracted without the smallest danger, and with no inconsiderable relief to the patient. But while inflammation exists, the relief is not permanent, the fluid being rapidly regenerated; so that in a day or two, or perhaps in a few hours, the swelling is as large as ever. If, on the other hand, the inflammation be already subdued, the absorption of the fluid usually goes on so rapidly, that any more expeditious method of removing it is unnecessary. 2dly. If suppuration has taken place in the joint (not in consequence of ulceration, but from the surface of the synovial membrane,) a free opening made into it with a lancet will often be attended with the best effect. I have known, under such circumstances, anchylosis to become established almost immediately, and the patient to obtain a speedy cure with an anchylosed joint. The most prudent method of proceeding is to make a puncture with a needle first, and allow a small quantity of fluid to escape, so as to ascertain its nature. If it be not simply turbid serum, but actual pus, the lancet may be used afterwards." 33.

Of course the surgeon would resort to such a measure in the spirit of caution in which it is commended. It will be seen that Mr. Brodie only approves of it in cases in which suppuration has occurred.

When the inflammation is in great measure relieved, stimulating liniments may be rubbed on twice or thrice in the day. Those contained in the Pharmacopœia do not seem to Mr. Brodie sufficiently powerful. He gives a formula for one which he prefers.

℞. Olei Olivæ, ℥iss.
Acidi Sulphurici, ℥iss.
Olei Terebinthinæ, ℥iss.
Fiat linimentum.

For private patients, the proportion of sulphuric acid in the liniment should be diminished. The effect of this liniment is to excite some degree of inflammation of the skin: the cuticle becomes of a brown colour, and separates in thick broad scales. Mr. Brodie also recommends the ointment of the emetic tartar. We have found the following an improvement on the ordinary form of this ointment.

℞. Ung. hyd. fort. ℥i.
Ant. tart. ℥iss.
Iodinæ, gr. x.
M. ft. ungentum.

The common tartar-emetic ointment produces slowly a pustular eruption. The combination we have mentioned is more speedy in its operation, occasions more general inflammation of the cutis, and gives rise to an eruption more vesicular than pustular.* Stimulating plasters are considered by our author as less convenient than stimulating liniments. They seem to be adapted to an ulterior stage of the complaint, when the patient is beginning to exercise the joint. Issues and setons may be of some service in chronic cases, but they are more serviceable when the cartilage has become ulcerated.

A great deal may be effected by rest, and by those means which tend to produce it. In the early stage of the inflammation the patient's sensations warn him to abstain from motion. But exercise at a later period is productive of less immediate inconvenience, and the patient will not submit to very rigid confinement, which, indeed would be injurious to the health. Under these circumstances the surgeon must resort to bandages or splints. On this head we may extract Mr. Brodie's sentiments.

"If the disease be far advanced, and there is danger of the cartilages being ulcerated, he will find it prudent to restrain the motions of the joint altogether, by the application of pasteboard splints, confined by a roller, or even by circular stripes of adhesive plaster on their outside. In other cases, the bandages, &c. recommended by Mr. Scott, in his ingenious work on the diseases of the joints, will be productive of the best results.† There is a bandage which is very well suited to cases of this kind, which, in one part of its circumference is composed of a stiff leather, elsewhere of an elastic material, and secured by a lace or buckles, so that it admits of being secured with any degree of tightness. If the seat of the disease be in the knee, there may be a single piece of leather adapted to the shape of the posterior part of the limb; if it be in the elbow there may be a double piece of leather, one on each side, and thus the construction of it may be varied so as to adapt it to any of the other articulations. In some instances much support may be wanted, and the leather should be stiff and unyielding: extending a considerable way above and below the joint. In others, where little support is necessary, the leather may be more pliant, and it should not extend beyond the immediate neighbourhood of the part affected. Such a bandage is worn with the greatest comfort, and it fully answers the intended purpose. As it may be removed or applied by the patient's own hands, the use of it is quite compatible with that of the stimulating liniments which I have formerly mentioned."‡ 37.

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* Mr. Brodie has not touched on an interesting subject of inquiry—the action of different modes of cutaneous irritation on various conditions of internal morbid action.

† "A very convenient mode of applying bandages in these cases is as follows;—Let it be supposed that the disease is in the knee. Circular stripes of leather with the *emplastrum plumbi* are to be applied round the joint, and extending some way above and below it; care being taken that a space is left for the patella; on which there ought to be as little pressure as possible. Over this a calico roller (four or five yards for an adult) may be applied, and over this again a few circular stripes of linen, spread with adhesive plaster, with another calico roller over the whole. A bandage of this kind carefully adjusted may not require to be changed for six or eight weeks, and is very convenient to the patient."

‡ "Bandages of this kind are made by Shoolbred, and Co. in Jermyn Street, and by Sparkes, in Old Bond Street."

Such is the treatment, on general principles, of acute and of chronic synovial inflammation. But Mr. Brodie alluded to those forms of the disease which are dependent on, or connected with rheumatism, syphilis, and gout. In these complaints particular remedies appear to display some peculiar influence.

In rheumatic inflamation we are accustomed to employ opium, diaphoretics, colchicum, and mercury. The indications for each particular medicine it would now be out of place to enter on. With regard to colchicum and mercury, Mr. Brodie expresses the following opinions.

"I have found reason to believe that the *colchicum* is to be preferred, where several joints are affected, and where the synovial membranes, which constitute the *bursæ mucosæ* and sheaths of the tendons, participate in the disease. In such cases, the wine of the root of colchicum may be administered in doses varying from 15 to 30 minims, three times daily, or, in some instances, the acetous extract of colchicum may be given in alterative doses of 2 or 3 grains every night. On the other hand, mercury is preferable where only one or two joints are affected at a time; but where there has been a manifest translation of the disease, either from some internal organ, or from one joint to another. The form of mercury most generally useful under these circumstances, is that of calomel combined with opium, and it should be administered in such doses as to affect the gums, or to produce some other indication of its action on the general system." 29.

In the cases apparently allied to gout, where the patient complains of an excruciating grinding pain, or feels as if the joint were torn open, the relief from colchicum is even more remarkable than in cases of rheumatism.

Where synovial inflammation is plainly connected with syphilis, mercury is beneficial; where it coexists with disease of the bone or periosteum, and forms one of the class of cachectic symptoms, sarsaparilla is required.

In cases of the peculiar chronic disease occurring in persons of a gouty habit, and invading many joints in succession, it is neccessary to pay attention to the general health, to regulate the diet and amount of exercise, and to keep the bowels gently open by mild aperient medicines. It has appeared to Mr. Brodie that patients have derived benefit from the use of acetous extract of *colchicum*, exhibited at intervals of six or eight weeks, for 10 or 12 successive nights, in small or alterative doses: and still more from the long-continued use of alkalies. The carbonate of potash usually agrees with the stomach better than the pure potash. Ten or fifteen grains may be given twice daily, in the middle of the day and evening, and continued, with occasional brief intermissions, for many months.

The treatment of the stiffness which occasionally continues after the inflammation of the joint has subsided, is the only point which remains to be considered. If its mobility is only in a slight degree impaired, we may safely leave its restoration to nature. But if there be much stiffness and thickening of the soft parts, repeated blisters, or the moxa, may be serviceable. At a still later period, friction will be useful, but it ought to be employed with caution. Whenever we discover the slightest indication of return of inflammatory action, blood should be taken from the part, and the friction should not be resumed for some time. When friction can be used with safety, it should be continued for two or three hours daily, and during a considerable period of time. The *douche* is productive of much the same

consequences, and applicable under much the same circumstances as the remedy last-mentioned. Whenever friction is useful the vapour-bath is useful also, in combination with shampooing and with passive motion. All these remedies require both time and patience. Where complete anchylosis has occurred no method will effect the recovery of motion in the joint.

Mr. Brodie relates three cases illustrative of the ordinary characters and progress of inflammation of the synovial membrane. These we may omit. But the case which follows displays a peculiar feature—the sudden diminution of swelling in the knee, and supervention of affection of the head.

Case. A young gentleman, aged about 13, was seized in July, 1817, with inflammation of the synovial membrane of one knee. Under proper treatment the inflammatory action subsided, but left a thickened state of the synovial membrane, the joint admitting only of a limited degree of motion. He was directed to employ friction with a stimulating liniment. About the middle of November the swelling became suddenly reduced and almost wholly disappeared, but on the same day he complained of acute pain in the forehead. This went off in a few hours, but for several days it returned periodically in the form of a nocturnal paroxysm, of great severity, though of only a few minutes' duration. With active treatment the pain ceased in the course of about a week, but he was then seized with somnolency, which was soon followed by strabismus, partial blindness, and almost total cessation of speech; after remaining in this state for about a week he died.

The next case is intended to illustrate a circumstance that occasionally presents itself—a sensation, on examination of the swollen joint, as of a number of small loose substances, of a soft consistence, within the cavity of the joint, and just perceptible to the touch. Mr. Brodie suspects these loose substances to be portions of coagulated lymph, which had been effused on the inner surface of the synovial membrane, and had afterwards become detached; similar to those which are sometimes formed in the cavity of an inflamed bursa mucosa. This idea, however, has not been confirmed by dissection.

In the next case, a sensation was given to the hand, on examining the knee-joint, as of some soft loose substance formed within the joint; and a crepitus was distinguished on moving the patella from one side to the other. Under the treatment resorted to, the loose substance became no longer perceptible, and the crepitus could scarcely be distinguished. Mr. Brodie supposes that this kind of crepitus, differing from that occasioned by ulceration of the cartilage and exposure of the bones, is produced by an effusion of coagulated lymph, or an altered secretion of synovia.

In the next case inflammation of the synovial membrane of the hip ended in dislocation of the head of the femur on the dorsum of the ilium.

Mr. Brodie next proceeds to an interesting form of synovial inflammation, that connected with inflammation and discharge from the urethra or the conjunctiva. From those cases it results that the affection may commence with inflammation of the urethra, or with conjunctivitis, or with synovial inflammation. This variety is well illustrated in one of the cases related by our author.

"One gentleman (at the time when these notes were taken) had as many as nine attacks of this complaint. The first took place when he was under twenty years of age, and the others at various intervals in the course of the next twenty years. In one of them the first symptom was inflammation of the urethra, attended with a discharge of pus, although, from particular circumstances, he could not believe that he had been exposed to the risk of infection. This was followed by purulent ophthalmia, and that by inflammation of the synovial membranes. In three of the attacks, a purulent ophthalmia was the first symptom; which was followed by inflammation and discharge from the urethra; and then the synovial membranes became affected; and in the other four attacks, the affection of the synovial membranes took place without any preceding inflammation either of the eye or urethra. The disease was not confined to the synovial membranes of the joints, but those of the bursæ mucosæ were inflamed also. In some of the attacks, the muscles of the abdomen were painful and tender, and subject to spasmodic contractions; and there was an occasional impediment to breathing, which seemed to arise from a similar affection of the diaphragm. The acute form of the disease, in this case, lasted from six weeks to three months, but nearly a year generally elapsed before the use of the limb was perfectly restored. He had an attack in July, 1817; and in the beginning of May, 1818, while he was still lame, he was seized with a very violent inflammation of the sclerotic coat and iris of one eye, which was subdued by very copious blood-letting, and the exhibition of mercury. He had another attack of the disorder in 1820, and in the Winter of 1822 he became affected with an inflammation of the iris and sclerotic coat of the other eye, which was also relieved by blood-letting and the use of mercury." 57.

Mr. Brodie concludes this chapter by the narration of two cases, one tending to display the good effects of colchicum, the other those of calomel and opium. In the former the patient complained of the sensation of the joint being torn open.

II. ON ULCERATION OF THE SYNOVIAL MEMBRANE.

When an abscess has formed in a joint, an ulcerated opening takes place in the synovial membrane, through which the matter is discharged. But Mr. Brodie has only seen two cases in which the ulceration occurred as a primary affection.

Case. 1. A young lady, æt. 9, fell and wrenched her hip. She walked out on that day, and in the evening she went to a dance, where she was seized with a rigor, and was carried home and put to bed. Next morning she was much indisposed, and complained of pain in the thigh and knee. On the following day she had pain in the hip, and was very feverish. These symptoms continued; she became delirious; and she died just a week from the time of the accident. The only lesion discovered on dissection was the collection of about half an ounce of dark coloured pus in the cavity of the hip-joint, the synovial membrane of which, reflected over the neck of the femur, was destroyed by ulceration for about the extent of a shilling.

Case 2. A middle aged man, who had met with a contusion of one shoulder, was admitted into St. George's Hospital. He complained of pain and tenderness in the shoulder, and a very slight swelling was perceptible. He had fever of a typhoid character. He died in a few days. Half an

ounce of thin pus was discovered in the joint. The synovial membrane bore marks of general inflammation, and in one spot, where it was reflected over the neck of the os brachii, it was destroyed by ulceration for about the extent of a sixpence.

III On a Morbid Change of Structure of the Synovial Membrane.

This disease consists in a morbid alteration of structure, which takes place in the synovial membranes of joints, and which, as far as Mr. Brodie has seen, is peculiar to these parts. He has never known an instance in the serous membranes, nor even in the synovial membranes of the bursæ and tendinous sheaths.

Mr. Brodie relates eight cases, in order to display the pathological condition which constitutes this affection, and the manner in which the tissue is invaded by it.

It is evident that the morbid action originates in the synovial membrane, which loses its original organization, and becomes converted into a thick pulpy substance, of a light brown, and sometimes of a reddish-brown color, intersected by white membranous lines. As the disease advances it involves all the parts of which the joint is composed, producing ulceration of the cartilages, caries of the bones, wasting of the ligaments, and abscesses in different places.

We will introduce the notes of the dissection of the joint in three cases, in proof of the correctness of the summary.

Case 1. In a diseased knee sent to Mr. Brodie by the late Mr. Horn, the joint contained about four ounces of a pale yellow fluid, having flakes of coagulated lymph floating in it. The synovial membrane where it formed the loose folds extending from one bone to the other, and where it was reflected over the bones themselves, the crucial ligaments, and the fatty substance of the joint, had completely lost its natural appearance. It was converted into a pulpy substance, in most parts about a quarter, but in some parts, nearly half an inch in thickness, of a light brown colour, intersected by white membranous lines, and with red spots formed by small vessels injected with their own blood. The synovial membrane on the edge of the cartilaginous surfaces had undergone a similar change of structure, but only for a small extent. The semilunar cartilages were entire, but in a great measure concealed by the pulpy substance projecting over them. The cartilages covering the bones, in a few places were in a state of incipient ulceration.

In another case the affection of the synovial membrane was more extensive, but the ulceration of the cartilage was so slight that it might not have been noticed on a superficial examination. These cases therefore show that alteration of the structure of the synovial membrane is the primary, ulceration of the cartilage a subsequent condition.

Case 2. The ligaments of the diseased joint were perfectly natural. The whole synovial membrane, except where it was reflected over the cartilages, was converted into a pulpy, elastic substance, of a brown colour, intersected by white membranous lines, in some places half an inch in thickness, in

others more; and in those parts where the membrane was reflected over the bones, near the border of the cartilages, it was destroyed in spots by ulceration.

The semilunar cartilages were in a natural state, but in a great measure concealed, in consequence of their being enveloped in the mass of substance formed by the diseased synovial membrane. The cartilaginous surfaces of the femur and patella were extensively, but not entirely, destroyed by ulceration; the ulceration being greatest towards the circumference. On the internal portion of the head of the tibia, the cartilage was destroyed only for a very small extent, the ulceration being entirely confined to the margin. On the external portion of the head of the tibia, the cartilage was absorbed to a greater extent. The bones possessed their natural structure and hardness. The cavity of the joint contained matter, and sinuses which opened externally communicated with it.

In another instance, besides ulceration of the cartilage, and morbid alteration of the structure of the synovial membrane, abscesses existed in the substance of the latter, and carious surfaces of bone were exposed.

These cases illustrate in a sufficient manner the pathological characters of the complaint. Mr. Brodie remarks that in every case the progress of which he has been enabled to watch, the disease has advanced slowly, and sometimes has remained in an indolent state during a long period of time, but ultimately it has always terminated in the destruction of the joint. He has never known an instance of affection of the hip or shoulder. It is usually met with in the knee. Mr. Hodgson met with an example in the ankle, and another in one of the joints of a finger. Mr. Brodie relates a case in which, on examination, the synovial membrane was lined on its interior with a straw-coloured gelatinous substance, very intimately attached to it. The membrane bore no marks of inflammation. The cartilage was partially ulcerated and the bone exposed. Mr. Brodie thinks that the effusion was not the result of inflammation, but of some other morbid action, and conjectures that it might be an early stage of the alteration of the synovial membrane.

The symptoms of the disease are thus described by Mr. Brodie.

It generally takes place in persons who are not much above the age of puberty. For the most part it can be traced to no evident cause, but occasionally it is the consequence of repeated attacks of inflammation.

"In the origin of this disease, there is a slight degree of stiffness and tumefaction, without pain, and producing only the most trifling inconvenience. These symptoms gradually increase. In the greater number of cases, the joint at last scarcely admits of the smallest motion, but in a few cases, it always retains a certain degree of mobility. The form of the swelling bears some resemblance to that in cases of inflammation of the synovial membrane, but it is less regular. The swelling is soft and elastic, and gives to the hand a sensation as if it contained fluid. If only one hand be employed in making the examination, the deception may be complete, and the most experienced surgeon may be led to suppose that there is fluid in the joint, when there is none: but if both hands be employed, one on each side, the absence of fluid is distinguished by the want of fluctuation." 85.

The patient suffers little till abscesses begin to form and the cartilage to ulcerate; even then the pain is often less severe than when the ulceration is a primary disease, and the abscesses usually heal more rapidly and dis-

charge less. At this period the patient becomes affected with hectic, and sinks unless the limb be removed by amputation. The progress of this disease varies in different cases. In general, one or two years elapse before it reaches its most advanced stage; but sometimes the period is much longer; and occasionally it becomes indolent, so that it remains during many months without any sensible alteration.

The diagnosis is seldom difficult. The gradual progress of the enlargement and stiffness of the joint, without pain, and the soft elastic swelling without fluctuation, are sufficiently distinctive in the majority of cases. But the disease may be confounded, under two sets of circumstances, with chronic inflammation of the synovial membrane.

"1st, When the synovial membrane has undergone a morbid change of structure, it occasionally happens that a preternatural secretion of fluid takes place at the same time from its inner surface; and the joint becomes distended, not with synovia, but with a turbid serum, having flakes of coagulated lymph floating in it, which causes the tumour to present nearly the same external characters as where the synovial membrane is inflamed. But here the swelling will not yield to that treatment, under which it would be speedily reduced if it depended on simple inflammation; and attention to this circumstance, joined with an accurate previous history, will enable us to recognize the real nature of the disease.

2dly, When the synovial membrane, after inflammation has subsided, has been left in a thickened state, and coagulated lymph has been effused into the articular cavity, the tumour in some instances, a good deal resembles the tumour which occurs in cases of this disease; so much so, that it will be very difficult to give a correct opinion, merely from observing the present appearance and condition of the joint. The surgeon must in great measure form his judgment from the account which he receives of the origin and early symptoms of the complaint; or (when an accurate statement cannot be procured) by waiting to observe its future progress." 87.

As an illustration of the symptoms, and an exposition of the diagnostic signs laid down, we will introduce the history of a case, of which we have already given the dissection.*

Case. A young man, æt 24, was admitted into St. George's Hospital, with one knee swollen to nearly twice its natural size. The swelling was prominent on the anterior and lower part of the thigh. It was soft and elastic, so that at first it appeared to contain fluid; but, on particular examination, the absence of fluid was ascertained by the want of fluctuation. The leg was kept in the half-bent state, and the joint admitted of only a very limited degree of motion. He had no pain, even when attempts were made to move the limb. The skin over the diseased part was of a pale colour, with some dilated veins ramifying in it. On each side of the joint a small orifice was observed, through which the probe might be introduced into a sinus; but the sinuses appeared to be of small extent. His general health was unimpaired. He said that, two years ago, he first experienced some pain in the knee, but it was not sufficient to prevent his going about his usual occpuations. Soon afterwards the joint began to swell, and the

* Case 3 of those intended to display the pathological condition.

enlargement gradually increased from that period. Several abscesses had formed at different times; but the greater number of them had healed.

A few observations on the treatment conclude Mr. Brodie's account of this disease. Those few observations may be readily compressed into two brief sentences—palliation of symptoms—amputation as soon as the case demands it, and the patient will consent to it.

We now proceed to an important subject—ulceration of the articular cartilage. As very many of the diseases of the joints consist in, or tend to, this condition, it is highly incumbent on the surgeon to be familiar with its symptoms, its progress, and its treatment. Specimens of gross and injurious ignorance of the nature and the characters of this disease are too frequent in public and in private practice. We shall, therefore, pursue, in a strict analytical order, the descriptions and remarks of Mr. Brodie.

IV. ULCERATION OF THE ARTICULAR CARTILAGES.

Mr. Brodie commences, by alluding to the doctrine which has sometimes been advanced—that the cartilages not being endowed with vascularity, ulceration when it occurs, must necessarily have been effected by the vessels of other tissues. As this opinion has lately been supported by Mr. Key, in a paper published amongst the Transactions of the Medico Chirurgical Society, perhaps it would be well to advert to it succinctly.*

Mr. Brodie is induced to oppose this doctrine on the following accounts. 1, The phenomena of growth seem to indicate vascularity of the cartilage. —2, Analogy would lead us to entertain a similar opinion respecting the condition of the cartilage in the adult. Thus, the transparent cornea is sometimes injected with red blood, and Mr. Brodie has seen bloodvessels extend from a diseased bone into the cartilage covering it. 3, The cartilage exhibits a power of reparation, for, although exposed to constant friction, it is not observed to be worn away, like the enamel of the teeth. 4, The cartilage undergoes an alteration of structure, being sometimes converted into a number of ligamentous fibres, each of which is connected by one extremity to the bone, while the other is loose towards the cavity of the joint. 5, In some cases, the free surface of the cartilage is removed by absorption, while that immediately attached to the bone remains unaltered. But, in other cases, the ulceration begins on the side in contact with the bone, while the free one continues smooth and perfect. Under these circumstances, the space formed by the absorption of the cartilage becomes filled up by a vascular substance resembling granulations, and uniting the bone and cartilage to each other.

In whatever way ulceration of the cartilage takes place, suppuration seldom occurs so long as it is not extensive; sometimes, indeed, it is absent when the disease has proceeded so far as to cause considerable caries of the bones. But this by the way.

But Mr. Key supposes that the ulceration of the free surface of the cartilage happens only through the medium of the vessels of the synovial

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* That paper was fully noticed in the last Number of this Journal. It will presently appear that Mr. Brodie has coincided with the Reviewer, and that the arguments which he employs are of the same description.

membrane. When the ulceration is at the margin of the cartilage his theory is easily accommodated to the fact. But when it is seated in the centre, he is under the necessity, as our readers are aware, of resorting to the agency of processes of inflamed synovial membrane, which, lying in contact with the surface of cartilage, effect its absorption. Mr. Brodie pointedly observes that, if this be correct, it establishes a new fact in pathology; there being, to his knowledge, no analogous instance. Mr. Brodie relates four cases, which militate against the views of Mr. Key. Of these the first is perhaps as striking as any, and will serve as a specimen of all.

"At page 93 of this volume," says Mr. Brodie, "I have mentioned the case of a boy in whom this partial absorption of the cartilages of the knee had taken place. In some parts the cartilage had altogether disappeared; in other parts, it had been absorbed on the surface towards the cavity of the joint, while the layer next the bone remained entire; thus presenting the appearance of grooves, as if a portion of its substance had been removed by a chisel. Now, according to Mr. Key's hypothesis, the absorption of the cartilage, in this case, ought to have been produced by villous processes of the synovial membrane projecting into the cavity of the joint, and lying in contact with the articulating surfaces. But no such villous processes existed, nor is any thing said in my manuscript notes of the synovial membrane having been even inflamed. Indeed, if it were inflamed at all, it must have been so only to a very small extent, as it is expressly stated, that there was no effusion either of pus or synovia, into the cavity of the joint. It is to be presumed that, if the absorption of the cartilage had been effected through the agency of the synovial membrane, it would have begun, and would have made the greatest progress, at the part most exposed to contact with it, namely, at the margin; and this corresponds with Mr. Key's own observations on the subject. But, in examining the condyles of the femur taken from this patient, which are preserved in spirits in the museum of St. George's Hospital, I find that this is exactly contrary to what has really happened. Throughout nearly the whole of its circumference, for the breadth of one-third of an inch, the cartilage remains of its natural thickness, and otherwise unaltered; in the centre of the bone it has altogether disappeared, and the grooved appearance of it is observable in the intermediate space." 333.

Mr. Brodie experiences a difficulty in determining the exact mode, in which ulceration of the cartilage ensues after inflammation of the synovial membrane. But he thinks it not improbable that in many cases usually regarded as examples of simple inflammation of the synovial membrane, the inflammatory action may really have begun simultaneously in all the textures of the joint. He cites a case which seems to support this notion. Mr. Brodie also alludes to ulceration of the cartilage as a sequence of scrofulous disease of the bone—as a consequence of a change into a fibrous structure —and as a result of a chronic inflammatory affection of the bone to which it is attached.

Of course, as the cartilage is not an absolutely insulated structure, blood-vessels can only pass to it through the medium of the bone or the synovial membrane. In this sense it may be said that the cartilage cannot ulcerate except through the agency of the vessels of the other tissues. But this is a mere logomachy, or a verbal quarrel, for we might as well contend that the skin could not be ulcerated, unless by the vessels of the cellular tissue, nor the bone be altered, but through the operation of the vessels of the periosteum or medulla.

We arrive at a subject of a more immediately practical description—the causes of ulceration of the articular cartilages.

1, It may be the consequence of disease originating in the neighbouring soft parts, especially of inflammation of the synovial membrane;—2, It may depend on a morbid condition of the cartilage itself;—or, 3, On a chronic inflammation of the surface or substance of the bone with which it is connected. 4, It may be the result of a peculiar alteration in the condition of the cancellous structure of the bones, which is met with in scrofulous persons; and, 5, It may follow the fibrous degeneration.

Ulceration of the cartilage, resulting from alteration of the cancellous structure of the bone, is separately treated of by Mr. Brodie. The succeeding observations principally relate to those cases in which the disease has originated either in the cartilage itself, or in the surface of bone with which it is connected. Mr. Brodie, adopting his usual method, details many cases illustrative of the pathological changes which constitute the disease. Those cases display the changes in question in the hip, the knee, and in other joints. We shall merely select sufficient for the purposes of explanation. And first of those cases which exhibit the characters and progress of disease of the hip-joint.

Case 1. A girl, æt. 24, was admitted into the hospital with symptoms of affection of the hip-joint, of two months' duration. In two months after admission she died. The foot was turned outwards, but no other alteration in the position of the limb is mentioned.

The synovial membrane was somewhat more vascular than usual. The cartilage covering the head of the femur had been destroyed by ulceration for more than half its extent; so as to expose the cancellous structure of the bone. The remaining portion of the cartilage covering the head of the femur was thinner than natural: but this was more observable in some parts than in others. Every where the loss of substance appeared to be on the surface towards the cavity of the joint; the layer of cartilage towards the bone being unaltered, except in one spot where it was ulcerated to a very small extent. The cartilage of the acetabulum was entirely destroyed, so that every where a carious surface of bone was exposed. There were no remains of the round ligament. The synovial membrane on one part of the neck of the femur was destroyed by ulceration; and here also a carious surface of bone was exposed. The bones themselves had their natural structure and hardness, not differing from healthy bones, except on the carious or ulcerated surfaces.

In another patient who had laboured under the symptoms for four months, the cartilages covering the head of the femur, and lining the bottom of the acetabulum, were destroyed by ulceration for about one-half of their extent, exposing an ulcerated surface of bone. The round ligament was readily torn in consequence of ulceration having extended to it at the part where it was inserted into the acetabulum. The bones possessed their natural texture and hardness. There was no pus in the joint.

Case 3. This patient died ten months after the commencement of the symptoms. When admitted, six months after the commencement, the limb

appeared to be an inch and a half longer than its fellow. In the progress of the case it became, or seemed to become shorter.

"On inspecting the body, the glutæi muscles were found wasted and shrunk, and in many parts their texture was destroyed by the abscesses, which communicated with the cavity of the joint by two ulcerated openings, one on the anterior, and the other on the posterior part. The abscesses formed several sinuses in the neighbourhood of the joint, and the capsular ligament was in consequence connected to, and in some measure blended with, the other soft parts.

The joint contained purulent matter. The synovial membrane was darker than natural, but otherwise had the ordinary appearance. There were no remains of the round ligament. The cartilages were every where absorbed, and the exposed surfaces of bone were in a carious state. The head of the femur was reduced to about two-thirds of its original size: and the acetabulum was rendered deeper and wider, nearly in the same proportion. At the bottom of the the acetabulum there was an ulcerated opening, just large enough to admit a common probe, communicating with an abscess within the pelvis. The carious surfaces of the bones had the same dark colour and fetid smell as in other cases of caries; but otherwise they did not differ from healthy bones." 103.

These cases show the consecutive series:—Ulceration of the cartilage—exposure and caries of bone—pus in the joint, and abscesses connected with it—absorption, by ulceration, of the head of the femur and margins or bottom of the acetabulum. In another instance the changes had proceeded farther, the head of the femur being almost dislocated on the dorsum of the ilium. The conditions were these:

In the anterior part of the joint, a quantity of organized soft substance, resembling that of adhesions, was interposed between the head of the femur and the acetabulum, and behind this was a collection of dark-coloured pus. From these two causes the head of the femur had been separated from the os innominatum, and pushed outwards, and it had afterwards been drawn upwards by the action of the muscles, so that it was lodged on the superior part of the bony margin of the acetabulum.

Mr. Brodie thus sums up the facts, and describes the progress of the disease.

"Ulceration takes place in the cartilages; generally in that of the acetabulum first, and in that of the head of the femur afterwards: sometimes it begins in both at the same time.

2. The ulceration extends to the bones, which become carious; the head of the femur is diminished in size, and the acetabulum is rendered deeper and wider.

3. Abscess forms in the joint; which after some time makes its way, by ulceration, through the synovial membrane and capsular ligament, into the thigh or nates, or even through the bottom of the acetabulum, into the pelvis. Sir Astley Cooper has shewn me two specimens, in each of which an abscess connected with a diseased hip had burst into the rectum.*

4. In consequence of the abscess, the synovial membrane and capsular ligament become inflamed and thickened. The muscles are altered in structure; sinuses are formed in various parts; and, at last, all the soft parts are blended together into one confused mass, resembling the parietes of an ordinary abscess." 107.

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* Abscess of the hip-joint occasionally opens into the bladder and vagina.—Ed.

Mr. Brodie does not assert that the hip is not liable to other morbid affections, but he believes that, in the greater number of those cases to which the name of "diseased hip" is usually applied, ulceration of the cartilage is the primary condition.

Mr. Brodie proceeds with the detail of cases, displaying ulceration of the cartilage in other joints. We shall simply select an instance of the disease in the several articulations. And first of the knee.

Case. A man, æt. 26, was admitted into St. George's Hospital, with symptoms of disease of the right knee-joint. The leg was fixed or nearly so, in the half-bent position. Subsequently to his admission, an abscess formed and burst. He also became affected with severe pain in the left knee, which, up to the period of his death, was never the seat of swelling.

On examining the body, the right leg was found bent so as to form a right angle with the thigh. The head of the tibia had been drawn towards the ham by the action of the flexor muscles, so that the condyles of the femur were unusually protuberant. The lateral ligaments were in a natural state. There were no remains of the crucial ligaments, or semi-lunar cartilages. The cartilages of the tibia, femur, and patella had been entirely absorbed. The bones were carious on their exposed surfaces, but not othewise diseased. The synovial membrane was free from all morbid appearances, except at the points of its attachment to the bones; where, in a few places, coagulated lymph had been effused on its surface.

The left knee, externally, had its natural appearance with respect both to form and size. The leg admitted of complete flexion and extension. On dissection, the ligaments and synovial membrane were found in a perfectly healthy state; but about one-third of the cartilaginous surfaces of the tibia and femur was destroyed by ulceration, the ulceration having taken place principally, but not entirely, near the circumference. The cartilage of the patella and the semilunar cartilages were entire; but the latter, in some parts, were softer than usual. The bones were free from disease. There was no pus or other fluid in the joint.

Mr. Brodie incidentally remarks, that the condition of the left knee explains the nature of, at least, many cases of that species of white-swelling described by authors, in which there is long-continued and severe pain in the joint prior to the appearance of any tumor.

In the next case, the disease was situated in the joints of some of the bones of the tarsus.

Case. A female, æt. 40, was received into St. George's Hospital on account of a disease in her right foot, which had originated in a sprain twelve months previously. An abscess had formed, and a sinus led to exposed bone. The leg was amputated seventeen months after the commencement of the disease.

On examining the amputated foot, the cartilages of the joint formed by the astragalus and os naviculare were found destroyed by ulceration, and a portion of the astragalus was dead, and undergoing the process of exfoliation. The cartilages of the joints formed by the cuneiform bones with each other, with the os naviculare, and with the metatarsal bones, were in like manner destroyed, and the exposed surfaces of bone were carious. The

abscess communicated with the carious joints. The ligaments and synovial membrane were in a natural state, except in a few spots, where they were detroyed by the abscess. The bones possessed their natural texture and hardness. The cellular membrane of the foot contained coagulated lymph and serum.

Mr. Brodie relates a case of an interesting character—one in which the ulceration of the cartilages appears to have been the sequence of rheumatic inflammation of the bone and periosteum. We had the opportunity of witnessing the case in question; but we think it would be better to introduce it further on, in connexion with others illustrative of the symptoms of ulceration of the cartilage. We, therefore, proceed to the consideration of those symptoms, having shown the anatomical features of the disease, and established its occurrence as a primary and an essential one. In the latter stages, whatever joint may be affected, the destruction is usually not limited to the cartilage, but involves the bones and contiguous soft parts.

Symptoms of Ulceration of the Cartilages. The disease may occur at any period of life; but is seen most frequently in those between the period of puberty and the age of thirty or thirty-five. In general, only one joint is affected—occasionally two or three are attacked at once, or in succession, in the same individual. Sometimes the disease is attributed to local injury—at others, no cause can be assigned—and frequently the supposed one appears to be imaginary. This disease constitutes the great majority of those cases of caries of the hip-joint which occur in adult persons; whereas in children, the joint is principally affected with that scrofulous disease, attacking the cancellous structure of the bones, which remains to be described. As the morbid changes in the hip-joint were first detailed by Mr. Brodie, when occupied with the consideration of the pathology of the disease, so he commences his account of symptoms with those exhibited by ulceration of the cartilage in this articulation.

When the disease occurs as a consequence of inflammation of the synovial membrane, its own peculiar symptoms are preceded by those of the latter affection. When it is itself the primary disease, the only symptoms experienced for some time are pain, and a slight degree of lameness in the lower limb. The pain is at first trifling and only occasional—it becomes afterwards severe and constant. Like rheumatic pain, it has often no certain seat.

"As the disease advances, the pain becomes exceedingly severe, particularly at night, when the patient is continually roused from his sleep by painful startings of the limb. Sometimes he experiences some degree of relief from the pain in a particular position of the joint, and in no other. A patient in St. George's Hospital never obtained any rest, except when he had placed himself on the edge of the bedstead, with his feet on the ground, and resting his body on a pillow, in a position between that of lying and sitting. Another patient was seen, night and day, crouching on his knees and elbows.

As the pain increases in intensity, it is more confined in its situation. In the greater number of instances; it is referred to the hip and the knee also; and the pain in the knee is generally the most severe of the two. At other times, there is pain in the knee, and none in the hip. Sometimes there is pain referred to the inside of the thigh: or even to the foot. Wherever the pain is situated, it is aggravated by the motion of the joint; but it is aggravated in a still greater

degree by whatever occasions pressure of the ulcerated cartilaginous surfaces against each other. Hence the patient is unable to support the weight of the body on the affected limb; and if he be placed on an even surface in a horizontal position, and the hand of the surgeon be applied to the heel, so as to press the head of the femur against the concavity of the acetabulum, violent pain is the consequence; although this be done in so careful a manner, that not the smallest degree of motion is given to the hip-joint. This circumstance is well deserving of attention; and no one should attempt to give an opinion as to the nature of a disease connected with the hip, without having made an examination in the manner which has been just described." 125.

Soon after the commencement of the complaint, the hip-joint is found to be tender whenever pressure is made on it before or behind. The absorbent glans in the groin become enlarged, and sometimes suppurate. Occasionally there is a slight degree of general tumefaction in the groin. It is curious that, in some cases, there is a tenderness, and even swelling, of the parts to which pain is only sympathetically referred. Mr. Brodie has observed this in the knee several times.

When the disease has existed for some time, the nates undergo a remarkable alteration in their form. They become wasted, less prominent, and present a flattened appearance, and look wider than those of the other side. In a very few cases, this increase of width is real, in consequence of the acetabulum being filled with coagulable lymph and matter, and the head of the femur being pushed out of its natural situation. In general, however, it is apparent only. The cause of the alteration in form may, in part be the position which the patient usually assumes when he stands erect; but the principal circumstance is, doubtless, the wasting of the fleshy bellies of the glutæi muscles.

Mr. Brodie next alludes to the alterations which are presented in the length of the affected limb—it appearing augmented in the early and diminished in the latter stages of the complaint. The former appearance is deceptive; for, if the distance between the anterior superior spinous process of the ilium and the patella, on each side, be accurately measured with a tape, no actual difference in the length of the limbs will be observed. The apparent elongation is produced by the alteration in the plane of the pelvis, the patient resting on the sound limb and advancing the affected one, which, of course, can only be effected by the depression of the corresponding side of the pelvis, and lateral incurvation of the spine. The appearance in question will often disappear in the course of a few weeks, on confinement to the horizontal posture; but, in growing persons, the curvature of the spine may become unalterable, and the alteration in the limb may be permanently established.

"In a few cases, where the patient is in the erect position, it may be observed that the foot which belongs to the affected limb is not inclined more forward than the other, but that the toes only are in contact with the ground, and the heel raised; at the same time that the hip and knee are a little bent. This answers to the patient the same purpose of enabling him to throw the weight of his body on the other foot; but it produces an inclination of the pelves in the opposite direction. The crista of the ilium is higher than natural, and there is an apparent shortening, instead of elongation, of the limb on the side of the disease." 129.

In the very advanced stage of the disease, when the head of the femur has

been completely destroyed by ulceration, the muscles are not prevented from pulling it upwards. The limb is then really shortened. The foot is usually turned outwards.

In other cases the shortening of the limb is attended with all the characters of a dislocation of the head of the femur on the dorsum of the ilium. In a case which Mr. Brodie relates, the circumstance was shewn, by dissection, to depend on the following anatomical condition. The round ligament was gone, and the cartilages were nearly destroyed by ulceration. The bones were carious on their exposed surfaces, but retained their natural form and size. The acetabulum was almost completely filled with pus and coagulated lymph; the latter adhering to the carious bone, and having become highly vascular. The head of the femur was lodged on the dorsum of the ilium. The capsular ligament and synovial membrane were much dilated; and, at the superior part, their attachment to the bone was thrust upwards, so that, although the head of the femur was no longer in the acetabulum, it was still within the cavity of the joint.

The shortening of the limb in the advanced stage of the disease is usually, but not always, the precursor of abscess. There is symptomatic fever, and an aggravation of all the symptoms occurs. The abscess usually presents itself in the form of a large tumor over the vastus externus muscle; sometimes on the inside of the thigh, near the middle; and occasionally two or three abscesses appear in different parts, and burst in succession. They discharge a large quantity of thin pus, and, in the worst cases, a copious suppuration continues, till the patient sinks exhausted by hectic. An adult so rarely recovers under these circumstances, that none but the most unfavourable prognosis is justified. Children recover from this advanced stage more frequently, but seldom without complete anchylosis. If suppuration has not taken place, the natural mobility of the limb is generally regained. Mr. Brodie appends a valuable note, enumerating the affections of the hip most liable to be confounded with the preceding.

1. "Inflammation of the synovial membrane.
2. The scrofulous disease, having its origin in the bones, of which I shall speak hereafter.
3. A painful nervous affection, which occurs chiefly in young females disposed to hysteria; which will also be noticed in a subsequent chapter.
4. Affections of the sciatic nerve, of the upper part of the femur and other diseases external to the hip, are not unfrequently mistaken for disease in the joint itself, especially by surgeons of limited experience, who are misled by the wasting of the glutæi muscles, and the flattened appearance of the nates, which may occur in any one of these cases." 133.

And next of ulceration of the cartilages of the knee-joint.

There is pain in the affected joint. At first it is slight and occasional, and relieved by a few days' rest. By degrees it becomes constant and severe, particularly at night, when it rouses the patient from his sleep. The pain is referred principally to the inside of the head of the tibia; but sometimes a slighter degree of pain extends down the whole of that bone. The pain is aggravated by motion, so that the patient keeps the limb constantly in one position, and generally half bent: and he never attempts to support the weight of the body on the foot of this side.

The symptoms of ulceration of the cartilages of the knee-joint differ from

those of inflammation of the synovial membrane in these respects :—First, that in the former the pain is slight in the beginning, and gradually becomes intense, which is just the reverse of what happens in the latter ; secondly, that in the former, the pain is at first unattended by evident swelling, which never appears in less than four or five weeks, and frequently not till after the lapse of several months. It must not be supposed that every case of pain in the articulation, attended with little or no swelling, is one of ulceration of the cartilages. But when the pain continues to increase, and at last becomes very severe—when it is aggravated by the motion of the joint, and by the pressure of the articulating surfaces against each other, and when, after a time, a swelling such as will now be described is established, we may safely conclude that the disease is of that nature.

The swelling which attends this disease in the knee is peculiar, and depends on a slight degree of inflammation having taken place in the cellular membrane external to the joint. It is usually trifling, and appears greater than it really is, in consequence of the wasting of the muscles of the limb. It has the form of the articulating ends of the bones, that is the natural form of the joint. No fluctuation is perceptible, nor is there the peculiar elasticity which characterizes the alteration of structure of the synovial membrane. But a few cases occur in which this disease *is* attended with a collection of fluid in the joint, and the circumstances under which they occur are thus laid down by Mr. Brodie.

" 1st. Inflammation of the synovial membrane may terminate in ulceration of the cartilages ; in which case it sometimes happens, that the flum, secreted into the cavity of the joint, in consequence of the primary disease, *is* absorbed ; while, in other cases, it *is not* absorbed before the peculiar symptoms of the secondary disease have shown themselves ; or,

2dly. This order may be reversed ; inflammation of the synovial membrane being the secondary disease, ulceration of the cartilages having preceded it, and the effusion of synovia into the joint being the consequence of it. This I supposed to have happened in the case of John Child ; which will be related hereafter.

3dly. In an advanced stage of ulceration of the cartilages, where an abscess is formed, it occasions ulceration of the soft parts, and usually makes its way to the skin ; but sometimes the pus is collected in the joint, distending the synovial membrane, and causing a tumour very similar to that which would arise from it being distended with synovia. In these cases, the surgeon must form his diagnosis by attending to the previous history ; by observing the degree and the kind of pain of which the patient complains ; and the state of his general health ; and by bearing in mind this circumstance, that blisters very seldom fail in procuring absorption of the too abundant synovia, and that they never cause the absorption of pus." 136.

Dislocation of the knee, as of the hip, occurs sometimes from ulceration of the cartilages. The head of the tibia is gradually drawn backwards by the action of the flexor muscles, and is lodged in the ham. Mr. Brodie has even known this occur where abscess has never formed, the patient ultimately recovering with a stiff joint and disfigured limb.

The symptoms attending ulceration of the cartilage, in other joints, correspond very closely with those of the disease in the hip and knee. The characteristic mark is pain in the beginning of the disease, unaccompanied with swelling, and invariably increased by pressure of the articulating surfaces of the bones against each other. The pain is chiefly referred to the

actual seat of the disease. But we have seen that, in ulceration of the cartilages of the hip, the pain is referred to the knee, or even to the ankle—in disease of the knee, the pain extends down to the tibia, to the ankle, and even upwards to the thigh—so, in affection of the elbow, the pain is felt, though slightly, in the fore-arm and the wrist—and in that of the shoulder there is often a painful sensation, extending down the whole of the bone to the arm. In cases of ulceration of the cartilages of the shoulder, the joint is smaller than natural, in consequence of the wasting of the deltoid muscle. When an abscess forms in connexion with this joint, it often assumes a somewhat singular appearance, when it has first penetrated through the deltoid muscle; so that Mr. Brodie has more than once known it mistaken for encysted tumor. In the advanced stage of the disease, the joint is liable to be dislocated forwards, the dislocation being sometimes only occasional, in other instances permanent; the head of the bone then rests on the anterior margin of the glenoid cavity of the scapula, and gradually makes a new cavity for itself in this situation.

"Whatever joint is the seat of the disease, the formation of abscess is always attended with an aggravation of all the symptoms. But the degree in which the general system is disturbed, when suppuration is established, depends on various circumstances; on the age and powers of the patient; on the size of the affected joint; and on its situation. An abscess connected with a deep-seated joint occasions more extensive mischief of the soft parts, before it reaches the surface, and, therefore, is productive of more serious consequences, than one which is connected with a joint which is situated superficially." 138.

The progress of the disease varies greatly in different individuals. It is generally tedious, but occasionally it is rapid. In one patient in St. George's Hospital, four months were sufficient to effect such destruction of the head of the femur and acetabulum, as to occasion a real shortening of the limb to the extent of an inch.

This concludes the sections on the history and symptoms of this disease, and we now proceed to the treatment.

Mr. Brodie observes that the general treatment must be suited to the general condition of the patient—that when fever is present, salines are required—that tonics are indicated when he is become enfeebled—narcotics when pain is severe—that the state of the digestive organs should be carefully attended to—that a course of sarsaparilla is often advantageous, especially in those cases in which ulceration of the cartilages is connected with a chronic inflammation of the bone in the neighbourhood—that when inflammation of the synovial membrane exists as a complication, the same kind of treatment is required for it in this, as in other cases—and that in one case, in which rheumatic inflammation of the bone and periosteum appeared to give rise to ulceration of the cartilages of the knee, the patient derived the greatest advantage from the internal use of mercury. Beyond these, Mr. Brodie can lay down no general rules of medical treatment, and he deems it unreasonable to expect that any medicine can be found to exercise a specific influence over a disease, the causes of which are so various in their character.

Rest is most essential. When the lower limb is affected, the patient should be confined to the bed, or, at all events, to the sofa. In most cases, a splint or some analogous contrivance, should be employed, to maintain the limb

in a state of perfect immobility. The plasters and bandages of Mr. Scott probably act on this principle.

Caustic issues have been indiscriminately recommended for the cure of diseased joints. The result of Mr. Brodie's experience is, that they are particularly applicable when the cartilages are ulcerated, and much more beneficial in this than in other diseases of the joints. Mr. Brodie prefers the issue made with caustic to that produced by the actual cautery. Setons, and blisters kept open by the savine cerate, are adapted to the same description of cases as is the caustic issue.

Local or general bloodletting is occasionally productive of advantage in the early stage, when, in consequence of exercise or other causes, inflammation of the ulcerated surfaces is present. In the early stage the warm bath is sometimes beneficial. Stimulating plasters, embrocations, and liniments are inefficacious—friction is invariably injurious. The prospect of benefit from the employment of remedies, is of course much diminished when abscess has occurred.

Having premised these general observations, Mr. Brodie proceeds to offer a few practical remarks :—First, on the treatment of this disease in the hip, and afterwards in other joints, without reference to suppuration having taken place ; secondly, on the plan which should be adopted where suppuration is established, and there is a collection of pus communicating with the articular cavity.

When the cartilages of the hip are ulcerated, the patient should be rigidly confined to his bed or couch. He usually prefers lying on the side opposite to that of the disease, but this position tends to produce distortion of the pelvis and the lateral curvature of the spine, besides facilitating the occurrence of dislocation of the head of the femur. A pillow, placed between the knees is calculated to obviate, in some measure, this effect. But, if possible, the patient should be placed on one of the bedsteads invented by Mr. Earle, lying on his back, with the shoulders and thighs somewhat elevated, and the latter as nearly as possible parallel to each other ; sometimes it is convenient to fix the pelvis by a bandage, passing from one side of the bedstead to the other. At a later period, when, in consequence of the extensive destruction of the articulation, the muscles begin to cause retraction of the limb, Mr. Brodie has found great advantage to arise from the constant application of a moderate extending force, operating in such a manner as to counteract the action of the muscles. For this purpose, an upright piece of wood may be fixed to the foot of the bedstead, opposite the diseased limb, having a pulley at the upper part. A bandage may be placed round the thigh above the condyle, with a cord attached to it, passing over the pulley, and supporting a small weight at its other extremity. He is satisfied that this tends to moderate, if not to prevent, the shortening, and the pain which results from that morbid process.

The use of the bedstead alluded to is quite compatible with the employment of any method of counter-irritation. In children, this is best effected by blisters kept open with the savine cerate. They may be applied, of a small size, on the nates, round the great trochanter and in the groin. In the adults, the same treatment is useful in the early stage of the disease, but afterwards caustic issues are productive of more benefit. The hollow behind the great trochanter of the femur is, in many respects, the most con-

venient situation for the application of the caustic; but, in some cases, the application of it on the outside of the hip is attended with better effects. A slough may be made with the caustic potash in the adult, half an inch in breadth, and two inches in length, behind the great trochanter. If this fails in giving relief, a second slough, of a similar size, may be made on the anterior edge of the tensor vaginæ femoris muscle; and, in some instances, though no relief is afforded by the first issue, there is great relief from the second. Mr. Brodie is not an advocate for the maintenance of the issue by means of beans; he prefers keeping it open, by rubbing the surface occasionally with the caustic potash, or with the sulphate of copper.

"The cases in which complete relief of the symptoms immediately follows the making the issue, are not very numerous. In general, there is some degree of abatement on the caustic being applied; and, in a few weeks afterwards (provided that suppuration has not taken place), if the patient continues in a state of quietude, the pain entirely leaves him. Where the pain is exceedingly severe (as it sometimes is, so as to prevent sleep during many successive nights), it is very desirable that some method should be adopted, capable of affording more speedy relief than that which can usually be obtained from the application of the caustic. If there is reason to believe that the ulcerated surfaces are in a state of inflammation, in consequence of the joint having been too much exercised, bleeding may be had recourse to. A blister may be applied to the groin, and repeated, if necessary. Blisters applied to the knee, or to the thigh, though there is no actual disease in these parts, will often occasion considerable or even entire, relief of the pain, which is referred to these parts in consequence of their sympathy with the hip. This is a curious circumstance; but I have known it happen in so many instances, that, however difficult it may be to explain it, I can entertain no doubt of the fact. Sometimes the pain is altogether relieved by the application of the blister; at other times, I have known it leave the knee to which the blister was applied, and attack the hip." 150.

Although a caustic issue in the groin is dangerous, from the proximity of the great bloodvessels, a seton is not equally open to objections. Mr. Brodie has tried this in many instances, and he comes to the conclusion that, where the pain is very severe, the seton in the groin is more calculated to afford immediate relief than the caustic issue; but that it is not so efficacious in checking the progress of the disease as it is in lessening the violence of the symptoms, and that the issue can be better depended on as a means of cure. It is necessary to use a curved needle, in order to make the seton in the groin; it may be passed obliquely, and include from one inch and a half to two inches of integuments.

The preceding observations are more or less applicable to the disease in other joints, besides the hip. In all, perfect quietude is indispensable. The means may vary, as one or the other articulation is affected.

"In some instances when the disease is in the knee, or ankle, or tarsal joints, nothing can be done better in the first instance than simply to lay the joint on an air-pillow, which, if not much distended with air, gives an uniform, regular and most convenient support on every side; but, for the most part, it is better to have recourse to splints made of pasteboard, or stiff leather, neatly moulded, to the figure of the limb. When the disease is in the shoulder, the fore-arm should be supported by a light leathern coat, suspended from the waist or neck, and the arm should be kept constantly bound to the side; and when it is in the ankle, great advantage will often arise from the patient wearing a common wooden

leg, which will enable him to take exercise for the maintenance of his general health, without aggravating the local disease." 153.

Whatever be the means employed, they must not interfere with the use of counter-irritants. When the knee or elbow is affected, we may employ the caustic issue, or the blister kept open by means of savine cerate. Mr. B. prefers the former. In the knee, a narrow slough may be made on each side of the patella—in the elbow, on the outside and inside of the joint. For the shoulder, an issue on the anterior and another on the posterior part of the joint appear to be superior to a large blister kept open by the savine cerate. In the instance of joints surrounded by numerous tendons, as the ankle and the wrist, a blister is more prudent than an issue, the latter being liable to injure those tendons which are superficial. But Mr. Brodie has, in several cases, made an issue below the internal or external malleolus. The disease has been relieved, but the remedy has occasioned such unusual irritation and distress to the patient, that it was with difficulty he could be induced to keep it open sufficiently long.

"I have seen many cases, in which the caustic issue has, in the first instance, removed all the symptoms of the disease; and yet, after some time, notwithstanding the patient has remained in a state of perfect quietude, and there has been no evident cause of aggravation, they have returned nearly in the same form as before, and with their original severity. In some of these cases, their recurrence is to be attributed to the issue itself, which from some cause, that the present state of our knowledge does not enable us to explain, produces an effect apparently the opposite to that which it produced when it was first made. The issue being allowed to heal, the symptoms again subside, and perhaps the patient may find himself entirely and permanently relieved before the sore is completely cicatrized. The same thing may be observed, perhaps, more frequently, where a blister has been long kept open by means of the savine cerate: and here, if the blister be of a large size, the recurrence of the pain is usually attended with a quick pulse, and a furred tongue, and much constitutional irritation, of all which the patient is relieved, when the blistered surface is allowed to skin over. It is evident that it is of much importance, and also that it may require considerable discrimination on the part of the surgeon, to distinguish when the issue or the blister begins to be injurious, and ought therefore to be persevered in no longer.

In other instances, where the symptoms have returned under the use of the caustic issue, it has appeared to me that this was to be explained in a different manner. A very small quantity of matter has been formed by the ulcerated surfaces of the joint, but not sufficient to prevent the application of the caustic, from producing in the first instance very considerable benefit. But having once begun, the suppuration has continued, until a sufficient quantity of pus has been collected to occasion distention of the joint, and the reproduction of the former symptoms, in spite of the remedy which before relieved them." 156.

Such cases are not of very rare occurrence, and should teach the surgeon to be cautious in his prognosis.

The next subject which occupies the attention of Mr. Brodie is the treatment of abscess, connected with ulceration of the cartilage. This is one of an important character, especially with reference to children, as they frequently recover, even after extensive suppuration has occurred. With adults this fortunate termination is so rare, as to render the management of comparatively less consequence.

Mr. Brodie has not found that the method of evacuating the matter recommended by Mr. Abernethy, is attended with any peculiar advantage in cases of this description. And as the abscess depends on an ulcerated condition of the cartilage and bone, it would seem to be likely, *à priôri*, as is really the fact, that the cause, still remaining, would still continue operative, and that the cavity of the abscess would not be obliterated.

Mr. Brodie has been led, in some instances, to believe, that after the application of the caustic, the tumor formed by the abscess has diminished in size. He has not, however, seen complete absorption of the pus from the employment of this or any other means, although he has witnessed cases of collections of fluid, which might readily be considered purulent, removed by the action of absorption. In the cases in which he has been enabled to investigate the nature of the fluid, it has proved to be serum rather than pus. Mr. Brodie does not advise the early opening of the abscess. He has seen it heal more readily, whether opened spontaneously or by art, when the patient has been kept for some time in a state of quietude, and the other appropriate means of treatment have been followed.

"An abscess connected with any joint, but particularly one connected with the hip, does not form a regular cavity, but usually makes numerous and circuitous sinuses in the interstices of the muscles, tendons, and fasciæ, before it presents itself under the integuments. It is, therefore, less easy to evacuate its contents than those of an ordinary lumbar abscess; and indeed it can seldom be emptied, without handling and compressing the limb, in order to press the matter out of the sinuses, in which it lodges. But this is often attended with very ill consequences. Inflammation takes place of the cyst of the abscess, and pus is again very rapidly accumulated. Small bloodvessels give way on its inner surface, the bloody discharge of which, mixed with the newly-secreted pus, goes into putrefaction, and exceedingly irritates the general system. I have seen cases, where, after a great deal of pains having been taken to obtain the complete evacuation of the contents of the abscess, and the puncture having healed, in a few days the tumour has become as large as ever, attended with pain in the limb and a fever resembling typhus in its character, and threatening the life of the patient. A second puncture having been made, a quantity of putrid fætid pus, of a reddish-brown colour, has escaped; the confinement of which had produced all the bad symptoms, which have been immediately relieved by its evacuation.

The practice which has appeared to me to be, on the whole, the best, is the following. An opening having been made with an abscess lancet, the limb may be wrapped up in a flannel wrung out of hot water, and this may be continued as long as the matter continues to flow of itself. In general, when a certain quantity has escaped, the discharge ceases; the orifice heals, and the puncture may then be repeated some time afterwards; but where the puncture has not become closed, I have seldom found any ill consequences to arise from its remaining open." 161.

Mr. Brodie again observes, that the chance of ultimate recovery is greatly diminished in the child, and still more seriously affected in the adult, by the formation of the smallest quantity of pus. But caution in abandoning treatment, and in resuming exercise, is necessary in even the most favorable cases. For the cure to be permanent, the treatment should be pursued for some time after the patient is apparently recovered. Mr. Brodie relates a striking instance, in which a relapse was the consequence of neglect of this precaution.

The mode of recovery in severe cases, is deserving of consideration. When

ulceration of the cartilages has made considerable progress, the limb is seldom preserved without anchylosis. But, if the disease has been checked in a less advanced stage, the patient may recover the natural motion of the joint, even though the cartilage has been extensively destroyed. Mr. Brodie cannot deny that cartilage is capable of regeneration, but he does not appear to feel assured that it is so. He has found the bony surfaces of a joint covered by a dense membrane, in order to supply the place of the cartilage which had been destroyed—he has also seen a compact layer of bone generated on the surface which was carious—he has noticed in the place of cartilage a thin layer of hard, semi-transparent substance, of a grey colour, and presenting an irregular granulated surface—he has observed, on the articulating surface of the bones of one hip, a crust of bony matter, of compact texture, of white colour, and not unlike marble in appearance. Of course it is not certain that these new formations were the consequence of ulceration of the cartilages, but, from circumstances to which we need not now allude, it is more than probable that they were so.

Mr. Brodie relates many cases, illustrative of the symptoms and treatment of the disease. They display the symptoms in the knee, the ankle, the elbow, the jaw. In selecting two or three, for the purpose of exhibiting the pathological characters of the complaint, we purposely omitted all reference to symptoms. We shall now relate two cases calculated to exhibit them, and also to portray the influence of treatment. In each, the knee is the affected joint.

Case. A young man, æt. 18, admitted Dec. 1st, 1810. The right knee was an inch and a half in circumference larger than the other. The swelling had the form of the articulating ends of the bones. The leg was half bent, and all attempts to give it motion gave great uneasiness. The pain which he experienced was great at all times, but particularly at night, when it very much disturbed his rest. He said that, eleven months previous to his admission, he had been seized with pain in the joint, so severe as frequently to keep him awake at night—that, six weeks after the pain attacked him, the joint for the first time became swollen—that, with medical treatment and perfect rest, the pain and swelling subsided so that he was able to walk about—that in the following September, having used the joint much, the pain and swelling returned, and had continued to the time of his admission.

An abscess formed, and the limb was removed by amputation on the 18th of March. The cartilages were ulcerated—the exposed bone was carious—the joint contained pus, which had made its way by ulceration through the synovial membrane—and the semilunar cartilages were nearly, the external lateral ligament completely, destroyed.

Case. Mary Jenkins, æt. 21, came under the surgeons' care in St. George's Hospital in November, 1809. The knee was somewhat swollen, the swelling having the form of the articulating ends of the bones, and appearing larger than it really was, in consequence of the wasting of the limb. No fluid was perceptible in the joint, nor was there any redness of the skin. She complained of violent pain, referred chiefly to the inside of the head of

the tibia, and extremely aggravated by motion. She was emaciated, and laboured under a slight degree of hectic.

In May, she had received a blow upon the knee, and soon afterwards she was seized with pain in the joint, which gradually became worse.

An issue was made with caustic on each side of the ligament of the patella. The issues were kept open my means of peas; their surfaces being also rubbed with caustic every fourth day.

At the expiration of a fortnight the pain was very much abated; she was able to give some motion to the joint without much uneasiness. The swelling had nearly disappeared.

In a short time the pain was completely relieved; however, she did not quit the hospital until the September of the following year. At this time she was free from all bad symptoms, and had recovered the perfect use of the joint.

While detailing the morbid anatomy of the disease, we alluded to the fact, that ulceration of the cartilage sometimes occurs as a consequence of acute rheumatic inflammation of the bone and periosteum. We observed that we would introduce further on a case of this description, related by Mr. Brodie. We think we may advantageously do so here, in connexion with an instance illustrative of the best mode of treating this severe, and not very rare affection.

Case. Sarah Holder, æt. 22, admitted into St. George's Hospital July 26th, 1827, with a diffused swelling, extending from the upper part of the right thigh to the leg, a little below the knee. The swelling was most conspicuous in the immediate neighbourhood of the knee-joint; and from thence gradually became diminished, having no defined termination either above or below. It was somewhat elastic, the skin over it appearing glossy and tense, but not redder than natural. The patient complained of exquisite pain, especially on pressure. The pain was also aggravated by every motion of the knee; nevertheless it was principally referred not to the joint itself, but to the thigh-bone immediately above it. In addition to these local symptoms, the pulse was frequent; the tongue furred, and rather brown; the skin hot; and the countenance anxious and expressive of much suffering. The symptoms had commenced on the day preceding that of her admission. She had been much exposed, from her habits of life (she was a prostitute,) to vicissitudes of temperature, and had laboured under rheumatic pains in the elbows and shoulders for a month previous to the occurrence of this complaint.

Under the use of leeches, salines, and calomel, with opium, the swelling and pain had entirely left the upper part of the thigh, but there were still some remains of both in the immediate neighbourhood of the knee. This was on the 13th of August. On the 15th she had a relapse, after accidental exposure to cold, and painful startings of the limb soon succeeded. Calomel and opium, blisters, an issue, were tried in vain. She contracted a large ulcer on the sacrum from pressure, and on Oct. 16th she died, after a severe attack of vomiting and purging, with rigors.

On examining the body, the knee-joint was found to contain neither pus nor synovia. The cartilage of all the bones which enter into the composition of the joint were ulcerated in several places, especially that of the inner condyle of the femur. A slight extravasation of blood had taken place into

the cavity of the joint, apparently from the surfaces of the bone exposed in consequence of the ulceration of the cartilages. The periosteum could be easily peeled off the surface of the femur, and the bone underneath appeared to be more vascular than is natural. The stomach was distended with an acid fluid of a green colour, similar to what had been vomited on the day preceding death. The gall-bladder was full of a very pale yellow fluid. There were no other morbid appearances.

The left shoulder, to which pain had been referred for a short time previous to death, was carefully examined, but no disease was detected in it.

We should observe that in this case the rheumatic inflammation of the bone and periosteum would appear, from the symptoms, to have been subdued by the means resorted to after the patient's admission into hospital. This circumstance would account for the trifling alterations discovered in those parts after death. In other cases of this description which occurred in the hospital—in which the symptoms were more severe and more rapidly fatal—the periosteum was found separated from the femur, nearly as high as the trochanters, by pus, and the surface of the bone was in that condition, that, had the patient long survived, extensive necrosis must necessarily have resulted. This fact which our limits prevent us from relating in a more detailed and satisfactory manner, tends to render the evidence on this subject complete.

The next case is brought forward to display the treatment which succeeds in removing this disease, when not of so severe a nature. We could add from our own note-book others.

Case. Sarah Hansell, æt. 46, admitted into St. George's Hospital, Aug. 22d, 1822.

She laboured under pain in the left knee, and a swelling extending up the lower part of the thigh, chiefly on the anterior part. There was no effusion of fluid into the joint. The leg was bent at an acute angle with the thigh, and the patient was unable either to extend it, or bend it further. The pain in the knee was referred chiefly to the inside of the joint; it was very severe, especially at night, when it awoke her from sleep with startings of the limb. Every attempt to press the articulating surfaces of the joint against each other was productive of acute suffering, causing the patient to scream; and she could not even bear the weight of the bed-clothes on the limb. There was much symptomatic fever, with a countenance expressive of severe suffering. The tongue was white and dry, and the pulse small and frequent.

Eleven weeks previous to her admission, she had become affected with rheumatic pains in her wrists and ankles. In the course of a few days these pains subsided, but she was now suddenly seized with most severe pains in the left knee, accompanied by much fever. After two or three days more the joint appeared to be swollen, first on the inside, then in front on each side of the ligament of the patella. The swelling attained a considerable size, but gradually diminished on the abstraction of blood by leeches and cupping. The pain, however, became progressively more severe.

She had been always subject to rheumatism. The catamenia had ceased since the beginning of the attack.

Calomel and opium so as to affect the mouth, leeches, blisters, and subsequently Dover's powder and caustic issues, were the treatment employed

in the hospital. On the 8th of May, 1833, she was dismissed, the knee being anchylosed in the bent position. She still experienced slight pain in it occasionally.

Mr. Brodie observed, in the commencement of his description of ulceration of the cartilages, that it is not unfrequently combined with inflammation of the synovial membrane. It is difficult to imagine that the former could proceed to any extent, without involving the necessity for the latter. And such, indeed is the fact. Sometimes the one and sometimes the other is the primary affection. Mr. Brodie relates an instance of each; but as an accurate discrimination of symptoms would render the diagnosis unattended with much difficulty to an observant surgeon, and as the symptoms of both affections have been amply detailed, we think we may dispense with the examples of the fact, interesting and important as they are.

The fifth chapter of the work is one of almost as much practical value as the one we have now concluded. To the latter we beg, in the most earnest manner, to direct the attention of our readers. The just discrimination of the symptoms, and the proper treatment of cases of ulceration of the cartilages, are so necessary to the surgeon in extensive practice, that we tremble to think of the consequences to patients, when their medical attendants are comparatively ignorant, as we fear they not very unfrequently are, of the items of the one and the nature of the other.

Scrofulous Disease of the Joints.

The subject of the next chapter is a scrofulous disease of the joints, having its origin in the cancellous structure of the bones. The vulgar, and too often the professional, idea of white-swelling includes the notion, that scrofula is the fons et origo of all diseases of the articulations. As Mr. Brodie remarks, it is difficult to say, with a great degree of precision, what symptoms are, and what are not, of a scrofulous character. But when we look at the diseases of individual textures, we find that some, as inflammation of the synovial membrane and ulceration of the cartilages, occur in persons of all habits, and under circumstances of great variety, while others, as the disease on which we are at present entering, is most frequently seen in combination with constitutional peculiarities, and with other morbid affections which common consent has pronounced to be characteristic of scrofula. This, we presume, is the most philosophical view of the question, and this is the view which Mr. Brodie would seem to have taken. It is true, as he observes, that all diseases of the joints are most common in persons of a scrofulous tendency; but to say that all are, therefore, necessarily scrofulous, is certainly not consistent with the rules of reasoning, nor with the practical evidence of facts. The leading argument in favour of considering an affection of the cancellous structure of the bones as *the* scrofulous disease of the articulations may, therefore, briefly be stated to be this—that it seldom or never occurs but in persons of a strumous constitution, and that very frequently it is combined with other strumous disorders. If the opponents of this view can prove that any other disease of the joints can be placed in the same category, they may then demand with reason that it should be admitted to the same distinction. But as we believe that they cannot prove this, we beg to hold to the opinions of Mr. Brodie, and continue to designate the following affection as the scrofulous disease of the articulations.

In this disease, the cancellous structure of the bones is the part primarily affected; in consequence of which, ulceration takes place in the cartilages covering their articulating surfaces. The cartilages being ulcerated, the subsequent progress of the disease is, in many respects, the same as where the ulceration takes place in the first instance.

As usual, Mr. Brodie first relates some cases exhibiting the morbid changes of which the malady consists, and then adds a summary expression of their value. We will first give Mr. Brodie's summary, and then select, as illustrations, a very few of his facts.

"The morbid affection appears to have its origin in the bones, which become preternaturally vascular, and containing a less than usual quantity of earthy matter; while, at first, a transparent fluid, and afterwards a yellow cheesy substance, is deposited in their cancelli.

From the diseased bone, we see, in some instances, vessels carrying red blood extend into the cartilage. The cartilage afterwards ulcerates in spots, the ulceration beginning on that surface which is connected to the bone. The ulceration of the cartilage often proceeds very slowly. I have known a knee amputated on account of this disease, in which the cartilage was absorbed for not more than the extent of a sixpence. Occasionally, a portion of the carious bone dies and exfoliates.

As the caries of the bones advances, inflammation takes place of the cellular membrane external to the joint. Serum, and afterwards coagulated lymph, is effused, and hence arises a puffy and elastic swelling in the early, and an œdematous swelling in the advanced stage of the disease. Abscess having formed in the joint, makes its way by ulceration through the ligaments, and synovial membrane, and afterwards bursts externally, having caused the formation of numerous and circuitous sinuses in the neighbouring soft parts.

In one of the cases which have been related, thin layers of cartilage were found lying on the ulcerated surface of bone, apparently unconnected with it. In some instances, in the advanced stage of this disease, we find nearly the whole of the cartilage forming an exfoliation, instead of being ulcerated.

This scrofulous affection attacks those bones, or portions of bones, which have a spongy texture, as the extremities of the cylindrical bones, and the bones of the carpus and tarsus; and hence the joints become affected from their contiguity to the parts which are the original seat of the disease. Sometimes, however, we may trace the effects of these morbid changes even in the shaft of a cylindrical bone; so that we see the femur or tibia converted in its middle into a thin shell of earthy matter, enclosing a medullary canal of unusual magnitude.

It has been remarked by a modern author,* that, in the last stage of this disease, the bones not only lose the preternatural vascularity which they possessed at an early period, but even become less vascular than healthy bone. I believe the observation to be correct; and this diminution of the number of vessels, and consequently, of the supply of blood, is probably (as this author has suggested) the proximate cause of those exfoliations which sometimes occur where the disease has existed for a considerable length of time, especially in the smaller bones." 194.

We have now to present some cases confirmatory of the foregoing observations.

Case. A lad, æt. 18, of scrofulous appearance, was admitted into St. George's Hospital in October, 1815, on account of pain, which he referred to the inside of one foot. It was constant, but slight, and did not prevent

* Lloyd on Scrofula, p. 123.

his walking; there was very little tumefaction. His health was bad, and he had several small ulcerations at the edges of his eyelids. In February he was seized with a fever, of which he died in March.

On dissection, the foot, which had been the seat of the pain, was particularly examined. The bones of the tarsus, and metatarsus, were found to contain an unusually small quantity of earthy matter, so that they were preternaturally soft, and admitted of being cut in any direction with a scalpel, without turning its edge. The cut surfaces of these bones were of a deep red colour, in consequence of increased vascularity; and vessels injected with their own blood could be distinctly traced extending from the bones into the cartilages covering them, and rendering the latter, in a few spots, of a red colour. The cartilage covering the internal cuneiform bone where it forms the joint with the metatarsal bone of the great toe, was ulcerated to a small extent. The ulceration had begun on that side of the cartilage which was connected to the bone; the surface towards the joint remaining entire. The bones of the tarsus were more diseased than those of the metatarsus; and those on the inside of the tarsus were affected in a greater degree than those on the outside. The bones of the other foot were affected in the same manner, but in a much less degree. Some of the other bones were examined, and were found nearly in a natural condition.

In the case which, in Mr. Brodie's work, immediately follows the preceding, both elbows, one knee, and several other joints were affected. In the next case, the disease had proceeded farther in its destructive operation.

Case. A young man, of scrofulous habit, was received into the hospital on account of a complaint in his right ankle and foot. There were sinuses on the outside of the latter. In five or six weeks after his admission, the leg was amputated.

On examining the foot, the cells of the cellular membrane were found distended with serum and coagulated lymph.

All the bones had undergone a morbid change, similar to what was observed in the last case, except that they were still softer and more vascular.

The cartilages of the ankle were completely destroyed by ulceration, and the exposed surfaces of bone were in a state of caries. The cartilages of the tarsus were entire, but, in some places, of a red colour; and this was found to arise from vessels loaded with red blood, extending into them from the bone. The ligaments and synovial membranes of the tarsal joints were in a natural state, as were also those of the ankle, except where they had been destroyed by the abscesses.

We do not know that it is necessary to add more specimens of the scrofulous disease of the joints. The preceeding display all its phases, from the alteration of the cancellous structure of the bone to extensive ulceration of the cartilages, caries or death of the bone, and abscess and sinuses opening externally. Those who would wish for more facts in detail, we recommend to consult Mr. Brodie's work. We pass to the consideration of the symptoms.

The disease occurs frequently in children, but is rare after thirty years of age. The hip and shoulder are less liable to it than the other articulations, probably from their being less exposed to the influence of the external cold. Several joints are sometimes affected at the same time, or in succession, a

second being attacked after the first has been cured, or removed by amputation. It is seldom observed in any but those of a scrofulous habit; and, in many cases, is preceded, attended, or followed by some other scrofulous symptoms. Mr. Brodie has often been led to believe, that the occurrence of this disease in a joint has suspended the progress of some other, and, perhaps, more serious disease elsewhere.

There is more likelihood of its being confounded with ulceration of the cartilages, than with any other disease of the articulations. But a moderate degree of practical discrimination will serve to point out the real nature of the disease in the early stage; and, when very advanced, the general implication of the textures, and the state of constitution of the patient, render the diagnosis of comparatively no importance.

"While the disease is going on in the cancellous structure of the bones, before it has extended to the other textures, and while there is still no evident swelling, the patient experiences some degree of pain; which, however, is never so severe as to occasion serious distress, and often is so slight, and takes place so gradually, that it is scarcely noticed.

After a time (which may vary from a few weeks to several months, the parts external to the joint begin to sympathise with those within it; and serum and coagulated lymph being effused into the cellular membrane, the joint appears swollen. The swelling is puffy and elastic, and though usually more in degree than it is at the same period in those cases, in which the ulceration of the cartilages occurs as a primary disease, it is not greater in appearance, because the muscles of the limb are not equally wasted from want of exercise. I have observed that, in children, the swelling is, in the first instance, usually less diffused, and somewhat firmer to the touch, than in the adult.

If a suspicion of some disease of the joint has not existed previously, it is always awakened as soon as the swelling has taken place. Should the patient be a child, it not uncommonly happens that the swelling is the first thing which the nurse or the parents discover. This leads to a more accurate enquiry, and the child is observed to limp in walking, if the disease be in the lower limb, and to complain of pain on certain occasions.

I have said, that the swelling is puffy and elastic; and, after what has been remarked in the former chapters, it is needless to point out more particularly the difference between it and the swelling which takes place in cases of inflamed synovial membrane. The swelling increases, but not uniformly, and it is greater after the limb has been much exercised than when it has been allowed to remain for some time in a state of quietude.

As the cartilages continue to ulcerate, the pain becomes somewhat, but not materially, aggravated. It is not severe until abscess has formed, and the parts over the abscess have become distended and inflamed. The skin, under these circumstances, assumes a dark red or purple colour. The abscess is slow in its progress; when it bursts, or is opened, it discharges a thin pus, with portions of curdly substance floating in it. Afterwards the discharge becomes smaller in quantity, and thicker in consistence, and at last it nearly resembles the cheesy matter which is found in scrofulous absorbent glands.

In most instances, several abscesses take place in succession, but at various intervals; some of which heal, while others remain open, in the form of fistulous sinuses, at the bottom of which carious bone may be distinguished by means of a probe." 199.

The disease may remain thus for months, or even longer, without material disturbance of the constitution. In less fortunate cases, the patient sinks from hectic, unless the cause be removed by amputation. At other times, a

curative process is set up, and anchylosis is established. But the cure is always tedious unless the complaint has been arrested very early. The chance of recovery is less where the joints of the foot and hand are attacked, than where the larger, but simpler articulations are implicated.

The leading point of distinction between the symptoms of this disease and those of ulceration of the cartilages, consists in the less degree of pain attendant on the former. The patient seldom suffers much, except when an abscess is just presenting underneath the skin, and its bursting affords him immediate relief. The exhausting pain and suffering occasioned by idiopathic ulceration of the cartilages is not witnessed in this disease, except in a few instances, and in the most advanced stage, when a portion of the ulcerated bone has died, and, having, exfoliated so as to lie loose in the cavity of the joint, irritates the parts with which it is in contact, and thus becomes a source of constant torment. Independent of this symptom, the general aspect and habit of the patient, the tediousness of the disease, and the circumstance of abscesses occurring in succession, are features distinctive of the malady.

The progress of this disease in the hip very much resembles that of the disease described in the last chapter. What pain there is, is referred to the knee rather than the hip. Dislocation upwards and outwards, occasionally takes place; Mr. Brodie has once seen it forwards, the head of the femur resting on the pubes. Abscesses form in the advanced stage. Yet in this, as in other joints, the lesser quantity of pain will commonly enable us to distinguish this disease from ulceration of the cartilages of the hip.

"When the disease occurs in those joints which are more superficially situated, such as the knee and ankle, we may be further assisted in our diagnosis by observing the character of the swelling by which it is accompanied, and which is somewhat peculiar, especially in children, previously to the formation of abscess. It is then limited to the immediate vicinity of the affected part and has a pretty well defined margin. When the disease is in the knee, the child usually keeps the leg a good deal bent, and the condyles of the femur are seen projecting, of a somewhat globular form, and appearing as if they were actually enlarged, although we know them to be not enlarged in reality. Altogether, however difficult it may be to describe it in words, the appearance is very characteristic; so that, judging from it alone, an experienced surgeon will, in many instances, be able at once to form a correct diagnosis." 203.

We have now to consider the treatment of this disorder.

Mr. Brodie observes that, the disease being the effect of a certain condition of the general system, general remedies must of course be necessary. On those remedies we need not take the trouble to dilate, as the profession are familiar with the subject. We need only hint, that regular habits and nutritious, but simple diet—pure air—tonics—and occasional aperients, must form the most important items in any plan of management. Of iodine Mr. Brodie says little, and that little is guarded, and consistent with Mr. Brodie's practical caution. He believes that the large doses in which iodine is commonly exhibited in this country are actually dangerous. He thinks that the medicine cannot be taken constantly, and that it may properly be made to alternate with courses of steel, or that the two may be advantageously combined. It is, indeed, lamentable to perceive the infatuation which some practitioners labour under respecting iodine. For all cases which are scrofulous, or can by any ingenuity be thought to be so—for all indolent tumors—iodine, in large doses, is frequently prescribed as a matter of course, and without a

suspicion that a surgeon, of any judgment, would hesitate to order it. Such is the force of habit on the mass, that the instant a remedy acquires reputation, genuine or false, it is universally and blindly distributed. Mr. Brodie remarks that, when the secretions are unhealthy, occasional mercurial alteratives are useful; but mercury, in larger doses, is invariably prejudicial. Mr. Brodie makes no reference to sarsaparilla. Could we trust our own experience, we should say it was more valuable, when properly exhibited, than even steel.

But local treatment, though subsidiary to constitutional management, is far from unimportant.

Mr. Brodie is disposed to doubt the efficacy of large local bleedings; but moderate local depletion, in the early stage of the disease, or when accidental inflammation is set up, is rational, consistent with analogy, and supported by experience. Counter-irritants are very rarely useful, except in some cases of disease in the hip-joint, in which the patient suffers, in an unusual degree, from pain and muscular spasms in the limb.

But perfect quietude of the limb is always useful—always safe. There are no particular directions necessary in the management of the abscesses. Mr. Brodie seems to prefer their being allowed to burst. Yet sometimes great relief is experienced from opening them by means of the lancet. We have a case of scrofulous disease of the ankle-joint now under our care, in which this was certainly the case. When the disposition to suppuration appears to have ceased, pressure, cautiously applied by strips of soap plaster, gives support to the limb, and promotes the curative process of anchylosis.

"If a portion of the bone has lost its living principle, and has exfoliated into the cavity of the joint, the chance of ultimate recovery is very much diminished. For the most part, the dead bone is so entangled in the living parts, that it is incapable of separation by a natural process; and every attempt to remove it by artificial means will occasion a fresh attack of inflammation and abscess. It is to be observed, however, that bone which is found exposed at the bottom of a sinus is not necsssarily doomed to exfoliate. It may be simply ulcerated, and may possibly granulate, and recover; and the surgeon, therefore, is not warranted in giving a prognosis which is decidedly unfavourable, merely because he discovers a piece of exposed bone, when he makes an examination with a probe." 207.

The question of amputation next presents itself—one attended with more difficulty than the hasty or the inexperienced surgeon might be tempted to imagine. On this point, the opinions of our author are highly deserving of attention.

When the joint is destroyed and the health is failing, no doubt can be entertained of the propriety of the operation. But the health may have suffered comparatively little, and yet the condition of the joint may be such as to render ultimate recovery very doubtful, and that, when it occurs, no better than anchylosis, after a considerable lapse of time. Is amputation preferable to such imperfect preservation of the limb? To determine this, it is necessary to consider two orders of facts of no trivial consequence. Those facts are in some measure opposed—they require sound judgment to balance, to compare, and to decide upon them. For, first, cases show that, after the removal of a scrofulous joint, disease of internal organs supervenes; and, secondly, cases also seem to prove, that a scrofulous joint allowed to remain too long, does appear, of itself, to give rise to visceral disease. Let us hear

Mr. Brodie on this subject. Its interest must excuse the length of the quotation..

"A girl," says he, "was admitted into St. George's Hospital, who laboured under this disease in the bones and joints of the tarsus. Her foot was amputated by Mr. Griffiths. In about three weeks the stump was perfectly healed; but now she was seized with symptoms which indicated an affection of the mesenteric glands, which had not shewn itself previously, and she died. On dissection, numerous glands of the mesentery were found enlarged, and containing a cheesy matter. Another girl, whose arm I amputated on account of a scrofulous disease of the elbow, became affected in the same manner immediately after the stump was healed. She also died, and similar appearances presented themselves on dissection. A man, whose leg was amputated on account of a scrofulous disease of the tarsus, in a short time after the operation began to experience symptoms which indicated the incipient state of some pulmonic complaint: and soon afterwards the other foot became affected in the same manner as the first. These are a few of many cases which might be adduced, as leading to this conclusion—that the occurrence of the scrofulous disease, in a particular joint, may be the means of preventing the scrofulous disposition from showing itself in some other organ; and that if the affected joint be removed by an operation, there is more danger of disease breaking out elsewhere, than there would have been if the operation had not been resorted to.

But we may refer to another order of facts, as showing, that there are occasions in which the amputation of a scrofulous joint, instead of rendering other organs more liable to the same disease, may actually produce the opposite effect of preserving them from it. It is to be observed that such a disease of a joint is never more than the remote cause of death, and that, where the result is fatal it invariably happens in the following manner. The patient is exhausted by a hectic fever, and, in this state of debility, disease takes place in the mesentery or lungs, or not unfrequently in both these parts at the same time, and it is this viceral affection which immediately precedes dissolution. It is evident, then, that in many cases there is a period of time at which the amputation of the limb may be the means of preventing the establishment of a secondary disease. Nor is this all. Visceral disease, which was previously in a state of inactivity, may assume a new form, and begin to make a rapid progress, under the influence of the disease of the joint; and amputation, under these circumstances, may be the means of preserving the patient, if not altogether, at least for a considerable time, perhaps for several years. A young woman was admitted into the hospital labouring under a scrofulous affection of the ankle. It was of long standing, and there were several abscesses communicating with extensive surfaces of carious bone. It was evident that there was no chance of cure for the disease in the joint. Nevertheless I did not think it right to propose to the patient that she should submit to the loss of the limb, as she had a troublesome cough, with a purulent expectoration, and other marks of pulmonary disease. She, however, earnestly implored that the ankle might be removed, and at her request, and certainly against my own judgment, I performed the operation. The stump healed readily. The pulmonary symptoms almost immediately subsided. She lived for four or five years in tolerable health, but at the end of that period, (as I have been informed,) there were again manifest indications of disease within the chest, of which she ultimately died.

It is evident, from these statements, that the question concerning amputation is, in many instances, one of a complicated nature, requiring the exercise of no small degree of judgment and discrimination on the part of the surgeon, and not to be determined, except after a minute investigation of the whole case, with respect to the disease in the joint itself, and also in whatever relates to the state of the general health at the time, and that of the constitution previously." 212.

The only point remaining for our attention is anchylosis.

If, indeed, the disease has been arrested early this may not occur, a membranous substance, possibly even true cartilage, supplying the place of that which has been lost. In other instances adhesions are formed between the articulating surfaces. Usually their small extent is advantageous to the patient; but this is not always the case. For example, in the joint of the knee it is not uncommon to find the patella completely united to the condyles of the femur, while the head of the tibia admits of a considerable degree of flexion and extension. This partial degree of mobility is productive of no small degree of inconvenience, and the patient would, in fact, be in a much better state if the anchylosis were complete in every part, as, in consequence of the fixed state of the patella, he has no power to act on the leg by means of the extensor muscles. The joint is indeed moveable, but its motions are not under the control of the will.

When recovery takes place after the formation of an abscess communicating with the joint the adhesions are general, the anchylosis complete. Bony anchylosis is rare, and at all events is not established till after the lapse of many years. It is never prudent to resort to any mechanical means for the purpose of preventing anchylosis, but we may venture, when the circumstances of the case require it, to adopt measures for gradually improving the position of the limb. For instance: when the knee has been affected, if left to itself, it often happens that the leg becomes fixed at a right, or even an acute angle with the thigh; and a light apparatus may be applied to the limb with a screw at the posterior part, by the agency of which the leg may be very slowly and cautiously extended. In like manner, if the elbow be in danger of being anchylosed in the straight position it may be very gradually brought into a state of flexion.

Mr. Brodie concludes an account of some cases of this disease, with some remarks which merit the attention of the pathologist. In referring to the morbid changes he observes, that the softening of the cancellous structure is only one of the alterations affected by scrofula, and we must not hastily conclude that this is always the original malady where we meet with bones thus deprived of their earthy matter. It is certain that a prenatural softness may occur after inflammation and caries of a bone which was previously healthy. It is only by considering the series of changes and concomitant circumstances that we can properly pronounce on the nature of the alteration. In noticing the former chapters of this work, we concluded each with one or two cases exhibiting the symptoms and the treatment. We shall take the liberty of adopting a similar method here, although we are aware that our analysis has extended to a considerable length.

Case. A scrofulous looking boy, æt. 6, was admitted into St. George's Hospital, in February, 1814, on account of an affection of the left knee. It was an inch and a half in circumference larger than the other. The swelling was puffy and elastic; without fluctuation: having nearly the form of the articulating extremities of the bones; but filling up the space on each side of the ligament of the patella. The joint admitted of considerable motion, but not of complete flexion and extension. He complained of pain, which was worse at night; but never very severe. It was somewhat aggravated by pressure.

His parents attributed the complaint to some trifling hurt, which he had met with a year ago; soon after which a slight degree of pain and tume-

faction was first observed, which had continued ever since, and had increased, particularly within the last month.

The treatment adopted in the hospital consisted of leeches and cupping in the first instance—the internal use of the vinum ferri with the tinctura ferri muriatis—and in March, the application of soap strapping to the joint, with the view of restraining its motions without interfering with the patient's exercise. At the latter end of April there was neither pain nor stiffness of the joint, and scarcely any swelling. The patient then quitted the hospital.

Case. A scrofulous-looking boy, æet. 9, complained in January, 1817, of an aching in his left elbow, which in two or three months was observed to be swollen. In May, an abscess formed and burst, on the inside of the elbow, and in January, 1818, another abscess began to shew itself upon the outside. He was now received into the hospital. The joint admitted of very limited motion. Whenever it was moved, or when the articulating surfaces were pressed against each other, he complained of some, but not of severe pain. He kept the fore-arm in the half-bent position, and walked about, supporting the hand in a sling, with very little inconvenience.

In the beginning of February, he was directed to take six grains of carbonate of iron three times in the day; and a purge of calomel and rhubarb was administered occasionally. The abscess was opened, and a poultice was applied. In May there was another abscess, and in June another, one of which was opened, and the other broke. In July there was little or no swelling—he was free from pain—and the abscesses, though open, discharged a very small quantity of matter. The poultices and fomentations were now discontinued, and some simple dressings and a bandage were applied. In September, the joint was not larger than the other; it admitted of much more motion than formerly; there was no pain; there was still one sinus, which was not completely closed, and which discharged a minute and almost imperceptible quantity of matter; all the other abscesses were completely healed.

The next case illustrates more perfectly the practice which Mr. Brodie has adopted of late years.

Case. Master H. K. then two years of age, was taken to Mr. Brodie in December, 1831.

The right knee was enlarged. The leg was half bent on the thigh, and the joint admitted of motion to only a limited extent. The swelling manifestly arose, not from fluid in the cavity of the synovial membrane, but from an effusion of lymph and serum in the cellular membrane external to it. The projecting condyles of the femur presented the usual rounded appearance which is observable in cases of the scrofulous disease of this articulation. The child complained very little, or not at all, of pain. There were no marks of derangement of the general health. The complaint had begun about the end of the previous October.

A pasteboard splint was applied on each side of the joint; the *vinum ferri* was prescribed to be taken twice daily for three weeks or a month, then omitted for a week or ten days, and then to be given for a month again, and so on. It was also directed, that some calomel should be administered once in three weeks, with an occasional dose of rhubarb and sal polychrest in the intervals; that he should be taken back into the country; that he

should be drawn out of doors in an open carriage, so as to be exposed to the fresh air for some hours, daily, in fine weather; and lastly, that he should be prevented, as much as possible, from using the limb.

In May, 1832, a swelling appeared on the inside of the thigh above the knee, which, in September, had all the appearance of an abscess. In May, 1833, this swelling was much reduced, and that of the knee was diminished also. In June, the former had disappeared. The diseased knee was no larger than the other, but it was stiff, and the leg was bent at a right angle with the thigh.

It was now directed that the splints should be left off, and that an instrument should be applied at the back part of the limb, attached to the thigh and leg, so as to give much support to the joint, at the same time that it was furnished with a screw, by means of which the leg might be very cautiously and gradually extended. No change was made in the treatment in other respects.

The machine completely answered the purpose for which it was intended. In a fortnight after it was first applied, the little boy was able to walk across the room without difficulty, and altogether it was so convenient that he was allowed to wear it during the night, by his own express desire.

In January, 1834, the knee was reduced to nearly its natural size. The leg was bent only in a very slight degree, and the patella moved readily upon the femur. The boy could walk pretty well with the assistance of the instrument. During the whole of the previous period, the patient had been kept in the country, being merely brought to town occasionally for the benefit of Mr. Brodie's advice. He was now directed to return to the country and to follow precisely the same plan of treatment.

Here we must close this notice. We have arrived at the 230th page of the volume, and have presented to our readers a close delineation of the portion we have traversed. Upwards of a hundred pages remain for analysis—and several subjects of no mean importance are left for consideration. Those subjects are caries of the spine—tumors and loose cartilages in the cavities of the joints—malignant and some other diseases of the latter—inflammation of the bursæ mucosæ.

On looking back at what has been noticed, we may spare ourselves the pleasure of addressing praise to the author. We will merely observe, that we have presented to our readers, perhaps in as small a compass as possible, a mass of as valuable information as any contained in a medical or surgical work. We return to the analysis of the volume before us in the next number of this Journal.

ILLUSTRATIONS OF THE ELEMENTARY FORMS OF DISEASE. By *Robert Carswell*, M.D., &c. &c.

[Fasciculus fifth.—SOFTENING.]

THE term softening is employed to designate a diminution of the natural and healthy consistence of organs. It is only of late years that the lesion has been investigated as a special morbid condition, although it deserves, upon every account, the attentive consideration of the scientific physician.

Dr. Carswell first enumerates the pathological phenomena which precede the lesion, and on these phenomena he founds his divisions of the latter. Perhaps this is not the most natural order; it undoubtedly possesses some advantages, and Dr. Carswell's arrangement is so firmly grafted on it, and so intimately intertwined with it, that we cannot adopt any other method of laying his descriptions and his views before our readers.

Omitting some general introductory matter, we may state that our author divides softening into two generic kinds; that which occurs during life—and that which takes place after death. The first he subdivides into softening from inflammation—softening from obliteration of arteries—softening from modifications of nutrition. The second, or the cadaveric softening, is arranged under the heads of softening from the chemical action of the gastric juice—and, softening from maceration and putrefaction. But he limits his observations in the present fasciculus to the softening which results from inflammation—from obliteration of arteries—and from the chemical action of the gastric juice. These are the most important varieties of the alteration, and we repeat that they are worthy of the attention of our readers.

SOFTENING FROM INFLAMMATION.

We confess that we are startled with the opening of this section. The boldness of the enunciation of the fact is only excelled by the confidence of the application of the theory. Let our readers judge.

"It may be laid down," says Dr. Carswell, "as a general rule, that every organ or tissue affected with acute inflammation, undergoes at the same time a diminution of consistence. The principle on which this change is effected is obvious, viz. cessation of the circulation, and, consequently, of nutrition, in the inflamed tissue. This state of the circulation is generally admitted to constitute one of the essential local characters of inflammation. It occurs subsequently to the accumulation of the blood in the capillaries, is always preceded by the effusion of serosity, and, in general, is accompanied by the formation and deposition of coagulable lymph and pus. Under these circumstances a supply of assimilable materials is cut off, and the function of nutrition is entirely suspended. A diminution in the consistence of the tissue thus situated follows, the degree of which will vary with the duration of the suspended function, and the degree of cohesion possessed by the tissue in its normal condition."

We are really not prepared to acquiesce in the declaration, that every tissue acutely inflamed is less consistent than when healthy. The whole passage is so involved that it is difficult to determine the precise meaning of our author. It would appear that the softening occurs at that period of inflammation which follows the effusion of serosity, and is generally accompanied by the formation of lymph and pus. It will not escape the observation of our readers, that Dr. Carswell takes for granted the truth of that *theory* of inflammation, of which cessation of the capillary circulation is the essence—a theory to which, to say the least, there are objections. And yet it does not appear necessary to his view, because the softening results from the effusion of fluids, serum or pus, which are actual circumstances, and independent of theory altogether. But it is not, after all, on such effusion that the softening in question depends, but on "cessation of the circulation and consequently of nutrition in the inflamed tissue." Now it is not by any means obvious to us why softening should be a necessary consequence of diminution or cessation of nutrition. If bone be inflamed and phosphate of lime be deposited in its interstitial texture in consequence of

inflammation, nutrition may be interfered with, and yet the reverse of softening takes place. Again, if the cellular tissue be infiltrated with serum or with pus, it may surely be softened independently of any peculiar cessation of nutrition. We have formerly remarked the singular disposition on the part of pathological writers to indulge in speculative reasoning—in speculative reasoning on that which is ostentatiously, and indeed very properly advanced as a science of simple facts. We think that this tendency may be traced to the French school—one distinguished by the liveliness of its fancy, and the hastiness and boldness of its generalization, rather than by its strict adherence to inductive reasoning.

Our habits and our taste incline us to pass at once to more solid matter, and we therefore proceed to the physical characters of inflammatory softening. Dr. Carswell commences with those which are noticed in the brain.

Inflammatory Softening in the Brain. The degree may vary from a slight diminution of the natural consistence of the organ to that of cream or milk. The first stage, or, perhaps, more strictly speaking, the first degree is often so inconsiderable as to be hardly perceptible to the touch or sight. To detect it a very careful examination is required. In the second stage the diminution of consistence may be recognized at once by the change of form to which it gives rise. The cerebral substance sinks by its own weight beneath the level of the cut surface; and prominent parts, such as the thalami, corpora striata, and convolutions, become more or less flattened. In the third stage a solution of continuity has been effected by the separation and partial removal of the softened cerebral substance. It is now of the consistence of cream or milk, contained in an excavation of variable extent, situated in the substance of the brain, or confined between the membranes and convolutions of this organ. All these degrees of softening may be met with in the same, or different portions of the brain at the same time.

Softening varies greatly in extent. It may occur in one portion only of the brain, or in several at once—in the cerebrum and cerebellum; but it is rarely observed in the latter, unless it be also present in the former.

The colour of inflammatory softening of the cerebral substance also presents considerable variety. This principally depends on the quantity of blood contained in the affected part, on changes which this fluid undergoes some time after its accumulation or effusion, and on the presence of serosity or pus.

"Redness and vascularity are, in general, greater in the first than in the second stage of softening, but the degree and the extent of either greatly depend on the quantity of blood in the cerebral vascular system. In some cases the redness and vascularity extend to a considerable distance beyond the softened part, diminishing gradually in intensity; in others they are limited to the immediate vicinity of the softening. The vascularity of the softened cerebral substance may be ramiform or punctiform, but it has more frequently a hemorrhagic character. When this substance is divided, it presents a number of red points, streaks, or patches, produced by the blood accumulated in the veins, or by the effusion of this fluid. In some cases the effused blood is small in quantity compared with the extent of the softening; in others it pervades the whole of the softened substance, and sometimes presents the appearance of hemorrhagic apoplexy. The redness, vascularity, and hemorrhagic character of inflammatory softening, are seldom so conspicuous as when this lesion occupies the brown substance, more especially of the corpora striata and thalami."

Inflammatory softening of the cerebral substance is not always accompa-

nied with these changes of colour; for sometimes the latter may be natural, or even paler than it should be. Pale softening in the white and brown substance of the brain is a frequent occurrence in hydrocephalus—an occasional one in those fevers in which the brain is primarily or secondarily affected. In such cases the vascular system of the brain contains but little blood, and its membranes are infiltrated with serosity. When the pale softening is the consequence of meningitis, it is often confined to the brown substance of the convolutions, and is frequently detected while removing the pia mater, in consequence of portions of this substance being carried away with the bloodvessels which connect it with this membrane.

When redness and softening arise from the presence of effused blood, the softening is of recent date. But when the colour is brown, yellow, and orange, either separate or combined, and occupying either the softened substance, the part of the brain contiguous to it, or both at the same time, the disease has existed for weeks, or even months. These varieties of colour are not observed unless the softening has been accompanied by sanguineous effusion, and originate in changes taking place in the effused blood, changes analogous to those observed in sanguineous extravasation in the subcutaneous cellular tissue after injury.

A pale yellow straw-coloured tinge of the softened cerebral substance arises from the presence of pus, but is rarely noticed, unless the softened substance be in contact with the membranes of the brain. Serosity produces not only pale softening, but likewise communicates a peculiar glossy, albuminous aspect to the alteration. When softening of the cerebral substance is accompanied by an increase of bulk, which is seldom great, it is chiefly owing to the presence of serosity.

Similar characters to those described above are displayed by inflammatory softening of the cerebellum, spinal cord, and nerves.

Inflammatory Softening of the Mucous Membranes. Softening of the mucous membranes is a frequent occurrence, but more so in some than in others, and most of all in that of the digestive canal. Dr. Carswell justly observes that the alteration has assumed a high degree of importance in the latter, from the zealous attempt of the *école physioligique* to discover, in changes of the intestinal mucous membrane, the cause of the greater number of diseases. Softening of this portion of the mucous tissue occurs as a consequence of inflammatory action, or of that of the gastric juice. Our author first describes the former mode of alteration.

Softening of the mucous membrane of the stomach and intestines presents, in regard to degree and extent, the same variety as in the brain.

"In the first stage, the mucous membrane, instead of possessing that degree of cohesion peculiar to it in different portions of the alimentary canal, and which permits of its being detached from the submucous tissue in pieces of considerable size, breaks when seized between the fingers or forceps; in the second stage, the edge of a scalpel, or even the finger passed lightly over its surface, converts it into a soft, somewhat opaque, creamy-looking pulp; and in the third stage it is so completely softened and detached, that a gentle stream of water poured on it from the height of a few inches removes it entirely from the surface of the submucous tissue. The removal of portions of the mucous membrane of greater or less extent is effected in a similar manner during life, by the contents of the stomach and intestines in their passage through these organs. It is important to observe that in all these stages the softened mucous membrane is more or less

opaque; it does not present the *transparency* which accompanies softening from the chemical action of the gastric juice. In the former case, and in the last stage of softening, it resembles a mixture of flour and cold water or milk; in the latter, the same materials after having been submitted to the action of heat."

The extent of inflammatory softening of the mucous membrane is extremely variable. It has been described as involving the other tunics of the stomach and intestines, and producing perforation of these organs. But Dr. Carswell believes that this is always the consequence of the chemical action of the gastric juice.

The greater frequency of inflammatory softening in some portions than in others of the digestive mucous membrane is a circumstance deserving of attention, as it enables us to distinguish this alteration from that effected by the agency of the gastric juice. True inflammatory softening is *not* more frequent in the stomach than in the intestines. In the former, it occurs most frequently in the body and pyloric portion, whilst that which takes place at the fundus is most commonly effected by the gastric juice. The termination of the ileum, and the depending and fixed portions of the colon, as the cæcum, the right and left hypochondriac regions, and the sigmoid flexures of this gut, are the most frequent seats of inflammatory softening in the intestines.

"Lastly, inflammatory softening is more frequent in the follicular than in the villous structure of the mucous membrane. It is from this latter circumstance in particular that the *form* of inflammatory softening derives any diagnostic value. When the softening affects the glandulæ agminatæ and solitariæ, it presents the general form of these glands, viz. large oval, or small circular patches, and these are forms of softening which are always to be regarded as the result of a pathological cause, particularly if the surrounding mucous membrane does not present the same change, or any of the other physical characters of inflammation."

The principal varieties of colour of the softened mucous membrane are the red and pale. In the red softening, the tint may be confined to the softened part of the membrane, or it may extend to the other parts at the same time; or the latter may be red and the former pale. The redness may also be very slight or very considerable, and presents no peculiarity of form. In the *pale* softening, the mucous membrane presents a pale greyish, or yellowish grey tint, its natural colour being little altered; or it may be paler than natural, when it generally presents a milky aspect, owing to its being reduced to a thin layer, through which the colour of the submucous tissue is partially seen.

Inflammatory softening of the other mucous membrane does not differ in kind from that of the intestinal canal, and does not, therefore, need particular description. It is seldom considerable, except in the mucous membranes of the uterus larynx, and bronchi, and is least of all in that of the urinary organs.

Inflammatory Softening of the Cellular Tissue. This, is, in several respects a very important pathological lesion, the cellular tissue being by far the most frequent seat of softening; in consequence of which, inflamed parenchymatous organs, in general, are easily lacerated and broken down. This is well exemplified by the state of the lung in pneumonia.

Muscular tissue is also easily torn, or separated into shreds, in consequence of the softening of its interstitial cellular structure. This is often observed in the muscles of voluntary motion, and sometimes in the heart. The easy separation of the serous and mucous membranes is always the consequence

of inflammatory softening of their connecting cellular tissue, and the degree of facility with which their separation is effected, affords a ready means of estimating the degree and extent of the inflammation to which this tissue had been subjected.

SOFTENING FROM OBLITERATION OF ARTERIES.

This occurs only in the brain, and at an advanced period of life. Rostan described this as a disease sui generis, and compared it to gangrena senilis. The opinion has been strongly controverted, and it is singular that, out of the great number of cases of softening of the brain which M. Rostan relates, he has not given one in which ossification and obliteration of the arteries of the organ, are mentioned as having been observed at the autopsy.

The most essential of the physical characters of this lesion is the state of obliteration of the arteries. That obliteration may depend on various conditions of the vessel. Dr. Carswell conceives that the softening is the consequence of the cessation of nutrition, resulting from the impediment to the circulation.

The obliterated arteries may occupy the softened cerebral substance, and may be seen or felt ramifying through it. It may be so limited as to be overlooked. In the case of obliteration of minute arteries, or of a single small arterial trunk, the softening is generally confined to a space not exceeding an inch or two inches in superficial extent; but if several large contiguous branches be obliterated, the extent of the softening is considerably increased, or occupies two or more distinct portions of the brain; and if the obliteration has taken place in the carotid or one of its principal divisions within the cranium, the greater part or the whole of a hemisphere may be softened.

Like inflammatory softening, this species is not confined to any particular portion of the brain, though it is more frequent in the brown than in the white substance, or in those parts most abundantly supplied with bloodvessels. Dr. C. has never observed this softening in the spinal cord. The degree of the alteration, as well as the colour, are often very similar to those observed in inflammatory softening. But redness is seldom considerable, and vascularity and effusion of blood are generally wanting, on account of the impervious state of the arteries. When effusion takes place, it is probably in consequence of rupture of the obliterated vessels, or of some of the smaller ones having remained pervious, and yielded to the increased momentum of the blood.

SOFTENING FROM THE CHEMICAL ACTION OF THE GASTRIC JUICE.

Omitting Dr. Carwell's brief historical notice of this lesion, we are under the necessity of closely confining ourselves to his description. He observes that a number of experiments which he has made on healthy animals shew, that softening, erosion, and perforation of the digestive organs are produced, after death, in them, as in the human subject, by the dissolvent property of the gastric juice. The essential property of that juice, according to Dr. Carswell, is acidity; and, without that property, there is no dissolution of the stomach, intestines, nor other organs, after death.

"In every case of this lesion which I have observed, this property of the gastric juice was present, and was readily detected by its sour smell on laying open the stomach, or by means of litmus paper. That this, and no other, is the

chemical cause of dissolution, is put beyond all doubt by *neutralizing* the gastric juice in the stomach of a healthy animal, killed during the act of digestion; for when this is done, *dissolution does not take place.* This, therefore, being the cause of the lesions I am about to describe, I shall use, in preference to the term gastric juice, that of gastric *acid.*"

Dr. Carswell proceeds to the enumeration and description of the physical characters of softening, &c. from the action of the "gastric acid" after death.

With respect to the situation of the lesion, it may be stated that it always occurs, or is greatest, at the most depending portion of the stomach. Under ordinary circumstances, this portion is the fundus, but accidental or other alterations in the neighbouring parts, or in the posture of the body, may modify it, and render other parts of the organ dependent.

"The degree of this kind of softening varies from a slight diminution of consistence of the coats of the stomach, to their conversion into a gelatinous pulp. In the first stage the mucous membrane (which is that which is first dissolved), presents a slight diminution of consistence, and has acquired a certain degree of transparency. When seized, it breaks immediately, or is crushed between the fingers into a soft pulp. In the second stage this membrane is seen lying like a quantity of albumen covering the submucous coat, and can be wiped off or removed by a bit of cloth or a stream of water. In the last stage the mucous membrane has entirely disappeared to a certain extent, thus leaving its submucous coat denuded, which is recognized by its grey silvery aspect. The same degrees of softening are observed in the other tunics of the stomach."

The extent of the alteration varies, being in one case confined to a small portion of the fundus, and, in another, occupying nearly the whole of the organ. It may be limited to the mucous membrane, or extend to all the tunics, when, perforation of the stomach occurring, the gastric acid escapes, acts upon the neighbouring organs—may perforate the diaphragm, and affect the contents of the chest, or pass into the œsophagus and dissolve its coats.

The form of this species of softening presents some important varieties.

"If the sofening be confined to the mucous membrane of the fundus, the form which it assumes is that of small or large patches. These are generally irregular, their borders being formed by the mucous membrane, and the bottoms of each by the submucous coat; their edges, besides being irregular, are thin, soft, and somewhat transparent. If the softening has extended to the other coats of the stomach, the edges of these are beveled outwards, present a fringed appearance, or terminate in thin irregular prolongations, which, when water is poured upon them, are seen to float like shreds of transparent coagulable lymph. Such are the forms of softening of the mucous membrane, so long as this membrane is smooth or stretched out by the contents of the stomach. But when this membrane is thrown into folds, or forms plicæ, the softening occurs no longer in patches, but presents those remarkable appearances described by M. Louis, as indicating the existence of pathological alterations. The forms of the softening in this case are those of stripes and bands of various dimensions occupying the situation of the plicæ. Wherever these stripes and bands exist, we find that the mucous membrane has been completely dissolved and the submucous coat laid bare. They have thus a blueish or silvery grey aspect, while the mucous membrane which they enclose may be of its natural colour, red, brown, or yellow, and appears in isolated patches of various forms and extent. It was the isolated and defined character of this form of softening which made it be considered as indisputably of a pathological nature."

Dr. C. makes a few further not uninteresting remarks on the colour of this lesion, and the circumstances that prove its chemical origin. We regret that we have only room to recommend the Fasciculus to our readers.

Beobachtungen, &c.; or Observations on the Original Malformations and total Want of the Eyes in Men and in the Lower Animals. By *Von Seiler*.

[second article.]

In our last Number, we finished the third division of the work under review, and we now proceed with the fourth, and to the conclusion of our analysis.

IV. Congenital Absence of both Eyes.

M. Botin has related in the History of the Royal Academy of Sciences, at Paris, 1723, an interesting case of an infant which lived for 41 days, and in which there was no trace of eyes. The lids had grown together, except at one point close to the inner canthus; upon dividing them, he found that the child had little or no power of moving them, and that no tears flowed out. The sockets contained nothing but a prolongation of the investing membrane of the lids, which was of a highly red colour and very sensitive to the touch. Almost all the cases on record of anophthalmus presented other deficiencies or malformations, besides those of the eyes, as, for example, fissures of the nose, lips, and palate—absence of the mouth, ears, &c.; in not a few, the number of fingers and toes was abnormal, sometimes exceeding the proper number, sometimes falling short of it. Those who wish to have a reference to most of the German cases will do well to consult Dr. Seiler's work. Some of the anophthalmous children lived for several months, others were still born—in most, the eyelids and eyelashes were present, and indeed normal, with the exception of their being more firmly adherent to each other, and of being drawn inwards into the almost empty sockets.

It is much to be regretted, that accurate anatomical descriptions of the state of the brain and rest of the nervous system have not been given, by the numerous authors who have recorded cases of this monstrosity. Even those which have been published within the last ten years are equally imperfect in this respect. We shall attempt to gather together the histories of a few in which a dissection was made. Malacarne examined the body of an infant which lived for two months, and in which no trace of either eye was present. The eyelids were well formed, and could be freely moved during life at will; the sockets contained nothing but a red-coloured membrane, very like in appearance to the substance of the gums; the lachrymal glands, the puncta lachrymalia, and the lachrymal canals, as well as the Meibomian glands, were well formed. On dissection, it was found that the eyeballs with their muscles, the 2d, 3rd, 4th, and 6th pair of nerves, and optic thalami, were entirely awanting; there were no optic foramina in the sphenoid bone. The preparation is preserved in the Museum of Pavia. In two similar cases, related by Schmidt and Osiander, the optic nerves, thalami and foramina, were found wanting.

Schoen, in his Manual of Pathological Anatomy of the Eye, published at Hamburgh, in 1828, describes the appearances which he found on dissecting an anophthalmous infant, which died in convulsions five days after birth. The eyebrows, lids, and lashes were well formed, but nothing except red

lumps could be seen within the sockets. The 3d, 4th, 5th, and 6th cerebral nerves were found to be normal, but there were no optic nerves; otherwise the brain itself did not exhibit any malformation. [It is to be regretted that this author does not particularize the state of the thalami and corpora quadrigemina.] The masses occupying the sockets of the eyes seemed to consist of cellular tissue and fat, and indistinct bundles of muscular fibres might be seen. The levatores palpebræ superioris were by far the most perfectly developed.

The anophthalmous child examined by Klintosh was also hydrocephalous. The ossification of the cranial bones was very imperfect; the forehead formed a large tumor, which projected anteriorly; the nose was awanting; the mouth misshapen, and there were no traces of most of the facial bones; the left eyeball looked like an hydatid, projecting between the two eyelids; the right one was quite awanting. On dissection, the brain did not exhibit any division into lateral hemispheres or lobes. The two lateral and the third ventricles together constituted a large sac, which held about nine ounces of clear serum. The body of the fornix was to be seen at the upper part of this sac, but no traces of its septum could be made out. The pineal gland and the corpora quadrigemina, were scarcely distinguishable; the corpora striata and thalami optici were rather more so, but still very imperfect. From the third ventricle, there proceeded a wide passage into a sac, formed by the dura mater; this projected through the substance of the sphenoid bone into the cavity of the mouth, and in which the pituitary gland was contained. The first six pairs of cerebral nerves were altogether awanting; the other pairs were present and apparently normal. Although the trunks of the fifth pair were wanting, many of their branches, dispersed on the parts exterior to the skull, were found as usual.*

The last case which we shall adduce was published by Daniel, of Halle, so far back as 1765. The fœtus was in the 7th month and hydrocephalic, the head being so disproportionably large, that it nearly equalled all the rest of the body. The spine, too, was bifid, and no doubt the vertebral canal was distended with fluid. The eyelids were found closed, and there were no traces of any eyes. The nose was exceedingly small and rudimentary: the left ear was awanting; so also were both the upper extremities; and the neck, chest and abdomen appeared externally as one continuous misshapen mass, there being no obvious distinction between these parts; some of the ribs could, however, be felt on the fore part and the spinal column posteriorly. On the upper half of this fleshy mass, which represented the neck, chest, and abdomen, was seen the attachment of the umbilical cord. The inferior extremities were moderately well formed: some of the toes were grown together. On dissection, the heart, lungs, trachea, diaphragm, liver, and the left kidney, were found to be awanting; only the right kidney, stomach, and intestines were present. The state of the spleen and supra-renal glands is not mentioned.

It is truly strange, that the recorder of the preceding case was so destitute

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* This last-mentioned fact especially ought to be remembered, as it furnishes one of the most potent arguments against the hypothesis of the excentric development of animal bodies.

of scientific curiosity as not to examine the nervous system, for not a word is said in the report of the state, either of the brain or spinal cord. Two chalk drawings of this monstrous fœtus are given in Dr. Seiler's work.

That variety of anophthalmus which has been called a cyclopicus, from there being but one median orbit under the frontal bone, is of more rare occurrence than the anophthalmus duplex. Prochaska has, however, left a description of an authentic case of the first of these malformations. The child was still-born at eight months; the eyelids of both sides were almost united to each other, and could scarcely be opened at all. Behind these was found only one orbit, but no eyeball existed within, and it was filled up with cellular tissue, fat, and a few muscular fibres. There was, moreover, no trace of any external nose, or of a mouth; the lower part of the face terminated in an obtuse point, on which was situated a small warty excrescence, underneath which there was an aperture, which led into the cavity of the mouth. The auditory and gustatory organs were also extremely misshapen, and some of them altogether deficient.

Clozoure has detailed, in the Revue Medicale for 1830, the particulars of a case, in which a single median or Cyclopic orbit, situated at the root of the nose, contained merely two small reddish warts. Over the upper eyelid, there was a prolongation of the skin, somewhat resembling an elephant's proboscis, and having a passage through it which led into the frontal sinus, and gave vent to a mucous discharge. The Royal Anatomical Museum at Berlin contains a specimen of female monstrous fœtus, whose eyes is indicated by an interpalpebral fissure, beneath the snout or proboscis. In some anophthalmous monsters, we find two orbits so closely applied to, or even, as it were amalgamated with, each other, that we at once recognize in them the transition step to perfect cyclopia. In such cases, we usually find a mere skinny projection placed under the eyelids, and provided with no nostrils in the place of the nose. The particulars of a case of this description are detailed by our author: most of the cranial bones were abnormally formed; the æthmoid one was awanting, and where the cribriform lamina ought to have been, there was a cleft or gap, over which the dura mater was extended. Moreover, the nasal bones and the nasal process of the superior maxillæ were deficient. The brain, in this case, was very small and soft, and exhibited indications of having been, at an earlier period, affected with hydrocephalus; there was no vestige of any convolutions, and the different protuberances, as the corpora striata, optic thalami, and so forth, were not at all distinguishable. The olfactory, optic, 3d, 4th, 6th, and 1st branch of the 5th cerebral nerves were awanting; the other pairs, including the other two divisions of the trigeminus were present.

Another specimen of an anophthalmous Cyclopic monster is preserved in the Dresden museum. The eyeball, with all the appendages of muscles, bloodvessels, nerves, lids, lachrymatory apparatus, and also the nose, are awanting, and only at the place where the left interpalpebral fissure should be, there is a scar-like line. On the upper part of the head, there is a proboscideal protuberance, covered with hairs, and from this place, the skin is continued smooth down over the face, without any trace of eyelids or nose; the mouth is small and round. The proboscis has no external aperture, yet it is hollow, and the canal is continued downwards and backwards into the fauces, and upwards into the cranial cavity. The frontal bones, the small

wings of the sphenoid, the æthmoid, and the inter-maxillary bones are awanting; the anterior edges of the parietal are nearly joined to the great wings of the sphenoid, leaving only between them a small interval, which is filled up with cellular substance, and covered over with the dura mater. It is worthy of notice, that in this, as well as in the preceding instance, the growth of the hair seems to have followed the development of the parietal bones. The only part of the encephalon that is quite perfect in its formation is the medulla oblongata. The cerebellum is indeed large, and exhibits the parallel windings on its surface; but its internal structure is exceedingly soft, and so watery that it resembles more a medullary cyst, than the ordinary structure. The first, second, third, fourth, first branch of the fifth, and sixth cerebral nerves are awanting; the others are present.

At this stage of our inquiries it is important to remark, that, independently of any primitive malformation, the eyes of a fœtus may be so much destroyed by disease, that they are quite useless. Thus Roederer mentions a case of a hydrocephalic child, in which he found the eyeballs so squeezed, compressed, and altered from an accumulation of fat, and water within the orbits, that it was quite impossible to make out any of their component parts. Beer also alludes to some cases of congenital disease, in which the internal structures of the eyes seemed to be quite confused and jumbled together, so that not one could be accurately distinguished. These morbid eyes were, however, not altogether insensible to the stimulus of light. But the limits of our paper prevent us from following out this subject. Hitherto we have alluded to the occurrence of anophthalmus only in the human fœtus; but examples of both kinds of it are not unfrequent in many of the lower animals also; as in the pups of the dog, cat, sheep, swine, &c. Tiedemann has recorded, in his Journal of Philosophy, an interesting dissection of an anopthalmous dog-pup. The diminutive and very short eyelid covered two exceedingly small orbits, which were occupied with cellular substance only. The inner surface of the lids was invested with a smooth covering, which was like the conjunctiva in appearance. On examining the brain, there were found in the place of the optic nerves, two extremely delicate fibres;—those proceeded from the thalami and corpora quadrigemina, and passing round the crura cerebri, terminated in front of the pituitary gland, without forming any commissure or union. The other opthalmic nerves, viz. the third, fourth, and sixth pairs, were quite awanting. The brain, including the thalami optici and corpora quadrigemina were normally formed.

Sir A. Carlisle has recorded in the Philosophical Transactions for 1801 the dissection of an anopthalmous cyclopic lamb; and Meckel has related a similar case occurring in the swine. But it is unnecessary to multiply examples of an anomaly which is known to most anatomists. We shall therefore proceed to the more instructive task of enquiring whether we can account for the complete deficiency of such an important organ as the eye, upon the same principle as we have endeavoured to unfold and illustrate throughout this paper; we mean the hypothesis of an arrest of or impediment to the ulterior development of the part, beyond its normal condition, at definite early periods of embryotic life. At the time when the dorsal laminæ form towards the cranial end, the small gaps or hollows for the cerebral vesicles, and before the anterior hollow, which is the widest, and is destined for the orbits, has been formed, we may suppose that from some

cause or another the progress of the developement of this latter hollow is arrested, so that while the posterior hollows, which are to receive the cerebral vesicles, are gradually but imperfectly formed, the optic ones remain in abeyance, and that at the same time the developement of the nasal and oral cavities, (which may be regarded as formations which close the spinal laminæ anteriorly,) is impeded. Now very generally along with these defects, the anterior cerebral vesicles are either not at all, or are only partially formed;—thus it is that the anterior lobes of the brain, and, in connexion with these, the frontal bones, are found to be only rudimentary or are altogether wanting. It is curious to observe that the almost complete deficiency of the upper and fore part of the frontal bone is attempted to be compensated for by the unusually expanded size of the parietal bones, stretching from the occipital bone even to the rudiments of the superior maxilla, and of the malar bones; and laterally to the petrous portions of the temporal bones; while the place of the orbitar plates is supplied in some degree by a similar enlargement of the small wings of the sphenoid bone.

Not less interesting is the fact, that the extent of the hairy scalp seems always to correspond with the extent of the amplified parietal bones, even when they reach as far as the superior maxillæ and the beak-like rudiments of the nasal bones.

As the growth of the hair is limited in the normal condition of the parts to the integuments covering the cranial bones, and follows a line from the occipital protuberance round by the junction between the squamous and petrous portions of the temporal bones, and across the fore and upper part of the head, in the course of the coronal suture; so in the cases of monstrosity, which we have been speaking of, when the parietal bones appear to occupy the place of the frontal bone, and also of the squamous portion of the temporal bone, we find that the hairy scalp is equally increased in extent; and, in short, that the extent of the latter is uniformly in accordance with that of the former.

It may be supposed that, whenever an organ of sense is awanting, the cerebral nerves which belong to that organ will remain undeveloped; but this is not strictly the case;—true indeed there is invariably some malformation of them, either as regards their texture or their course; they may, for example, proceed a short way from the brain, and then suddenly stop short, the neurilema becoming blended with the adjacent dura mater; or the sheaths alone are found, and there is no medullary substance within them. But although the issuing nerves be imperfect, it is still possible that the portions of the brain whence they are given off may be quite normal, and yet the organs of sense to which the nerves belong may be altogether deficient. The researches of Tiedemann, as unfolded in his admirable work on the anatomy and developement of the brain, have contributed most essentially to the elucidation of many of the most perplexing phenomena connected with cranial monstrosities.

That our readers may form some idea of their value, we shall briefly allude to the history of a monster figured in Dr. Seiler's plate, in which the whole of the face, (including the eyes, nose, &c.) between the os frontis and the lower jaw, were wanting; there was thus a large external opening leading right into the fauces. Now in this case, a person might have expected to have found that most of the cerebral nerves were wanting, as the organs,

for which they are intended, were not present; and he may therefore be surprised to hear, that the only one which was altogether deficient was the olfactory; and the brain, with the exception of the greater part of the anterior lobes being wanting, was normal. Now Tiedemann tells us that such is very nearly the natural state of parts in a three months' embryo, every part of the brain being formed then, except the anterior lobes, and all the cerebral nerves, except the olfactory, being present. We have already adduced facts to shew that the absence of any organ does not necessarily suppose the entire absence of the nerves intended for its use. The converse of this state is also occasionally met with; the eyes, for example, are found, and yet there are no traces of retinæ or of optic nerves. Dr. Seiler mentions the case of a hydrocephalic child, which he examined; the sheaths of the optic nerves did not contain any medullary fibres, and they were so thin and delicate, that they could scarcely be traced on to the eyeballs; and yet these organs exhibited all their component structures, with the exception of their retinæ and corpora vitrea; and again, in a microphthalmous fœtus, no optic nerves could be discovered, and yet considerable advances in the developement of the eye had taken place. In like manner, the olfactory organs are sometimes found to be tolerably well-formed, while the olfactory, and even also the trigemini nerves have been wanting.

There still remains another important theme of reflection suggested by the consideration of the preceding malformations. We have seen that when the eyeballs are awanting, many of the accessory appendages of these organs, such as the lachrymal glands, puncta, and canals, are also not unfrequently absent, just in the same manner as we find that, when there are no testicles, the scrotum, prostate, and so forth, are either not at all, or only imperfectly developed. But we are not to allow ourselves to conclude from such occasional occurrences that there must be therefore a law or invariable operation of the organizing power, by which one part is formed in consequence of another part, or by which the different organs are evolved from the centre to the periphery. This has been a favourite speculation of some late anatomists; but most assuredly it is contradicted by the best ascertained results of embryology. The position laid down by Rudolphi is much more correct;—"that every part of the centre and of the periphery is formed after its own definite and distinguishing type, according to the period of its developement, and either primarily in its own locality, or to be subsequently affected by time or by situation, provided all along that no impediment or arrest ever take place." This holds true, in an especial manner, with the developement of the nervous system. Klinkosch found, in a case where one of the trunks of the trigeminus was entirely deficient, its peripheral ramifications in their proper localities; and Dr. Seiler adduces his own observations in proof of the accuracy of the statement. He examined a fœtus, in which, as in the example related by Rudolphi, all the nerves were present, although the brain and the spinal marrow were altogether awanting. In consequence of a few of such cases, M. Serres, in his work on the Comparative Anatomy of the Brain, published at Paris in 1824, announced the doctrine that the developement of the nerves commences at the periphery, and proceeds to a central point, at which all meet; but the whole history of embryology, from the first month until the perfect formation of all its organs, the earlier formation of the trunk, the subsequent formation of the

head, and of the extremities, (these two shooting from the centre peripherally) and lastly every instance of regeneration stand opposed to M. Serres' hypothesis. The tendency of the developing power is always from the centre towards the periphery; parts which are intermediate may indeed be arrested in their formation, while the parts on either side may advance in their normal progress; it is in this way that we explain the rationale of those cases in which the branches of a nerve are developed, while the trunk of the nerve is awanting, or in which the rudiments of the forearm and hand are found attached to the shoulder-blade, while the upper arm is altogether absent. Other examples illustrative of the same doctrine may be adduced from the occasional occurrence of a trunkless head superimposed upon another head; or of a bicephalous monster, or of the complete absence of the cervical vertebræ, the head being then joined on to the dorsal vertebræ, &c. and still more striking proofs are those strange anomalies of organization, in which one quarter, or even one entire half of the body is deficient, as for example, the head, chest, and part of the belly, while the other quarter, or other half is regularly formed. Surely such monstrosities are quite irreconcileable with Serres' doctrine of concentric or converging development.

Part II.—Of the Original Malformations of Special or Individual Parts of the Eye.

Orbits. In the preceding part of this paper we have spoken of most of the congenital defects of these cavities. Whenever the head is much enlarged by hydrocephalus at birth, it has been found that the orbitar plates of the frontal bone have generally their oblique, or nearly horizontal position altered to a more perpendicular plane, and that thus the size of the orbits is necessarily reduced. If again the development of the olfactory organs be imperfect, or irregular, the situation and shape of the orbits may be affected in consequence; thus they may be placed too close to each other, or they may be even melted into one, constituting the monophthalmus cyclopicus. A variety of other malformations is occasionally met with; but the consideration of these need not detain us longer. It is important to observe that in many cases of microcephalus the orbits are not only proportionally too small, but they even want one or more of their component bones.

Eyelids. The shortness of the lids, when they are insufficient to cover the globes entirely (lagophthalmus), may very often be referred to an interruption of the development of these parts. Sometimes the lids are altogether awanting, although the eyeballs be perfect. Morgagni alludes to his having seen a specimen of this deformity in a man whose corresponding eye was quite destroyed; but he does not mention whether this was congenital or not. The deficiency of the lids in anophthalmous monsters is by no means infrequent. The adhesion of the eyelids to each other (anchyloblepharon) or to the conjunctiva of the ball, (symblepharon) is probably oftener the effect of an intra-uterine inflammation, than of any original malformation. That inflammation of different organs of the fœtus do occasionally take place, we can have no rational doubt, when we consider the numerous instances on record, authenticated by good witnesses. Chaussier found in

a seven month fœtus most distinct traces of enteritis and diaphragmitis. Vernan mentions having seen in the body of a new-born child a quantity of sero-purulent effusion within the pleuræ, which were at the time coated with lymph. The thymus has been found inflamed, and Otto in his Manual of Pathological Anatomy says that he has seen several well-formed and very obvious ulcerations on the lips and gums of a new-born infant. The conjunctiva oculi, in cases of congenital deficiency of the lids, has been noticed by several observers to have become thick and red; and this change is sometimes so striking, that the membrane has assumed the appearance of the membrana nictitans of birds.

It cannot then be questioned that the eyes, or some parts of them may become involved in disease, while the fœtus is in utero; and it will sometimes require a practised observer to determine whether the abnormal appearances of the organ at birth are to be attributed to disease, or to a primitive malformation. Ectropium and entropium occasionally occur as congenital maladies; and also blepharoptosis, in which the upper eyelid from its unusual length hangs down over the lower one. In cyclopic monsters, there are sometimes rudiments of the four lids placed round the single eye; at other times there are none at all.

Lachrymal Organs. In our account of anophthalamus, it may have been observed, that there is no steady rule with regard to the presence or absence of these organs in cases of this congenital defect. In Klinkosch's case, they were awanting; but not so in that related by Rudolphi; and in an example which occurred to Weidele, the lachrymal gland was found lying in the place of the absent eyeball. Again, the lachrymatory apparatus may be either entirely or partially deficient, although the eye has been formed.

Cyclopic monsters very often present rudiments of the double formation of many of the ocular appendages; and among these, of the lachrymal gland.

Muscles of the Eyeball. It would be very interesting if we were better informed respecting the congenital malformations of these muscles, as probably considerable light would thereby be thrown on some of the causes of squinting (strabismus and luscitas). Wrisberg found in a man who had squinted greatly, the cornea to be higher up than natural, one of the recti muscles wanting, and the others to be grown together. Otto mentions the occasional shortening or even entire absence of some of the recti muscles in such cases. Dr. Seiler states that he dissected a case in which the two oblique muscles were wanting, although the eyeball and other parts were normal. Sometimes, but very rarely, more than the usual number of ocular muscles have been found. Kulmus and Meckel have met with two upper oblique muscles, which had separate origins and separate pullies, and Caldani has described a muscle which arose from the lower edge of the orbit and expanded itself on the lower lid.

The duplicity of the muscles is very common in cyclopia.

Nerves. Our notice of this head need be short, in consequence of our having repeatedly throughout this paper alluded to the condition of the ocular nerves in malformations of the eyeball. We have seen that some

or all of them may be either entirely wanting or that they may be reduced to mere membranous cords, having no medullary substance within. An interesting irregularity is occasionally met with; viz. where the optic nerves run apart from each other throughout their whole course, from the thalami to the eyeballs: now, although such an arrangement has not hitherto been shewn by any anatomist to be normal at any stage of embryotic life, it points to a defect of the organising principle in joining the two lateral halves of the body. Numerous instances are on record in which this malformation was found, and yet the brain and adjacent parts were otherwise quite regular. It is by no means infrequently observed in microcephalous monsters. In a cyclopic dog-pup, Majendie could find no trace whatever of any optic nerve; the brain was exceedingly small, without any convolutions, and lay like a simple tubercle in the back part of the cranium. The first five pairs of cerebral nerves were quite wanting. A very similar case is related in Haller's lesser works. The converse of such occurrences is also sometimes met with; the eyeball being absent, while the optic nerve has been normally formed. This nerve, like most other parts of the eye, is usually, but not always, double in cyclopic monsters; and in such cases an irregularity of the entrance of the nerve or nerves is not uncommon.

Sclerotica and Cornea. The former of these membranes is, in the young fœtus, and even in children at the birth, very thin, and of a blueish-white colour; and if from any cause the perfect developement of the eye-ball has been impeded, this state of the sclerotic remains through life. In the third and fourth months of fœtal existence, the sclerotic is of an oval or lengthened shape, in consequence of its anterior part projecting very much forwards at these periods. This prominence (protuberantia scleroticæ fœtalis] becomes gradually less and less, so that by the ninth month it is not very apparent. In microphthalmous fœtuses it is generally most distinct. In them the cornea often remains cloudy, and not easily to be distinguished from the sclerotic; it has a lengthened shape, and appears to be surrounded with a purplish ring. Many of the congenital affections of this membrane which have been attributed to fœtal disease, are in fact only signs of a retarded developement. Thus authors have often spoken of the cornea being found altogether awanting, the sclerotic being then continued over the front of the eye; probably this anomaly is always explicable on the above principle. In such cases it may almost always be observed that the supposed prolongation of the sclerotic is rather more thin and transparent than the rest of the membrane; and perhaps the most anterior or central point may be even moderately clear and permeable to the light. The example narrated by Kieser in Himly and Schmidt's Ophthalmological Dictionary seems to have been of this description. Dr. Farrar relates the cases of new-born triplets, in each of whom the cornea was quite opaque. In two the opacity had in a great measure disappeared within twelve months after birth; while in the third, no change had taken place at the date of the history, the child being at that time three years old. We must not however suppose that every case of congenital opacity of the cornea is referable to the cause now mentioned; for doubtless some are the effects of a previous inflammation in the part. Wardrop refers to several examples of congenital tumors growing on the cornea, and Baron Graefe has met with cases of telangiectasis,

or nævus of this membrane. A much more common malformation is the extreme or morbid prominence of its convexity, constituting the affection which has received so many appellations; such as "staphyloma corneæ pellucidum, or hyperkeratosis," by Himly; "ochlodes," by Taylor; "conical-formed cornea," by Wardrop; "sugar-loaf cornea," by other English surgeons; "cornée conique," "staphylome transparent de la cornée," by most French authors; and "kerato-conus," by Ammon. The most projecting point of the convexity is seldom at the centre of the cornea; but generally somewhat to the side; and often it has a peculiar glancing lustre, like a piece of polished glass; or it may have even an opalescent play of colours; or on the other hand it may be dull and smoky. This affection ought to be always distinguished from the other and more common variety of staphyloma [s. corneæ opacum]; also from hernia of the cornea [keratocele] and from dropsy of the eyeball. If the degree of the protrusion be not very great, the child may retain its vision, but must be exceedingly short-sighted; and unfortunately if it be considerable, the patients are almost always completely blind. To Professor Jager of Wurzburg, we are indebted for the best anatomical description of this malformation; it appears from his researches that the cornea is often unequally thick at different parts, being much thinner than usual in one place, and much thicker in another. Some of the other structures of the eye also are occasionally involved; thus the pupil may be closed, or the lens may be cataractous; or the retina amaurotic. Ammon and Jager have remarked that this congenital affection of the cornea is very often associated with some peculiarity in the formation or shape of the cranium; for in some it was unusually small and conical; in others, the frontal bone was much flattened and depressed, while the parietal and occipital bones projected more than ordinarily. Now in connection with these facts it is most interesting to find that those able observers, Ammon and Gescheidt, have discovered hyperkeratosis in a two-month embryo; and the question therefore arises in our minds, whether the affection is to be viewed as the result of a retarded or interrupted developement, or of a fœtal disease. Wimmer inclines to the former opinion, and supports it by referring to the condition of the eye, not only in those animals which are lower in the scale, but also in the young of all mammals, including man; the cornea being uniformly more conical during its fœtal developement than it is afterwards. He says, "many physiologists have ascertained that the human embryo, from the period of its earliest to that of its perfect formation, gradually passes through several stages of organization, each succeeding one being of a higher grade than that which went before it.

Now in many animals, as in the genera astacus and lucanus, among insects; in most birds, especially in those which are carnivorous, and in some of the mammiferous class, as the mole and porcupine, a very great convexity of the cornea is the normal or healthy state."

But this merely analogical reasoning cannot be admitted as sufficient to resolve our doubts; and until it has been proved by competent authorities that the natural condition of the embryotic cornea is that of extreme prominence, we must hesitate before we arrive at any conclusion. Hitherto embryologists have not succeeded in determining this point: and if the weight of their testimony leans to any side, most assuredly it is unfavourable to Wimmer's view of the question. The observation therefore of Ammon and

Gescheidt, of the occurrence of this anomaly in a two-months embryo, must, in the present state of our knowledge, be considered rather as an example of a diseased, than of a merely interrupted condition of the cornea; but whether this membrane is primarily affected, or only consecutively, from an excess of the aqueous humour, is still very uncertain.

Although we have thus, in obedience to the strict laws of deductive reasoning, refused our assent to the doctrine maintained by Wimmer and others, in reference to the origin of hyperkeratosis, we must avail ourselves of this opportunity of urging the great importance of numerous anatomical examinations of this, and, indeed, of all other congenital opthalmic affections; the development of the eyeball and of the brain stand in so close and so allied a relation to each other (according to Huschke, the former being only an expansion of the canal of the optic nerve, which proceeds from the cerebral bladder,) that the irregularities of the one may very probably be supposed to be similar to, and also to influence, those of the other organ. As malformations of the cranial bones are more common in hydrocephalic children, so in hyperkeratosis, the structure of the other parts of the eye is more frequently abnormal. If the development of the cerebral mass, from its primitive watery condition, be unusually tedious and imperfect, we can readily understand the reason why the medullary matter of the nerves which issue from it is, in such cases, thin and pulpy, and why the retina, for example, should resemble a serous membrane more than a nervous expansion. We have strong reasons for believing that a great many of the cases of congenital amaurosis derive their origin from this cause. The partial thickening of the cornea in hyperkeratosis is probably owing, in the chief degree, to the pressure of the contained aqueous humour, just in the same manner as the cysts of many watery swellings, and even the bones of the cranium in hydrocephalic children, who have survived for a considerable time, are condensed. Loder has preserved in his museum the skull of a hydrocephalic child, two years old, in which the parietal bones are three quarters of an inch thick, and in case of a patient who lived 42 years, Schneider found one of the parietal bones an inch and a quarter in thickness. A similar remark often holds true, with respect to the membranes of the eye, in other affections besides hyperkeratosis; for in dropsy of the eyeball, the sclerotic is very often found thicker than usual. In cyclopic eyes, the cornea is generally double, or at least exhibits traces of being so.

The Choroid Coat—Corpus Ciliare, and the Pigmentum Nigrum.

The choroid coat, as well as the retina, has been found cleft by Ammon and Gescheidt in the eye of an adult person: this imperfection (coloboma choroidea) is known to be the normal state of the membrane during one period of embryotic life.

When the pigmentum nigrum is only partially deficient, the eye of the individual is rather more than ordinarily susceptible to the stimulus of light; and this state may be considered as the transition-stage between health and albinism. Our limits prevent us from following Dr. Seiler, in his interesting account of peculiarities of body which characterize the latter curious affection, and we must limit our remarks to the appearances of the eyeball only. The conjunctiva is usually very pale, or it may have a somewhat red

aspect, from the bloodvessels which permeate its structure; the sclerotic is thinner, and has a purplish hue; the cornea is generally more convex, the choroid is without its pigmentum, and the iris without its uvea. The iris is usually of a bluish-red colour, the blue prevailing towards the inner, and the red towards the outer circumference; and the surface of this curtain often exhibits a beautiful striated structure, the striæ diverging from the pupil to the outer circle, and being interlaced and connected together by means of transverse striæ or fibres, especially towards the pupillar margin. If the eye be examined when a bright light is permitted to fall upon it, the pupillar part of the iris appears of a pale blue colour, and the outer or ciliary part exhibits a red tinge, which glimmers between the white striæ. The red colour is scarcely perceptible when the pupil is dilated, as in the shade. In most albinos, the eyeballs are perpetually moving to and fro, from one canthus to the other, and the iris is often in a continual state of oscillation. Short-sightedness is very common among albinos. Albinism, as is well known, is sometimes only partial, large patches of the surface of the body here and there being quite white, while the rest retains its natural colour; the eye may be similarly affected. Rudolphi saw a dog, in which one half of the iris was white, and the other half quite dark; but in two or three histories of piebald human albinos which are on record, it is stated that the eyes were black throughout, and, therefore, that they did not exhibit the irregularity alluded to. The proximate cause of albinism, (or, as it has been called by different authors, leucœthiopia, leucopathia, leucosis, or the white malady) is indubitably a deficiency of the colouring matter of the skin and of the eyes; but if we enquire what has probably given rise to this deficiency we shall find ourselves at once perplexed between two theories—the one assuming that it is really, and in truth, a morbid state, or peculiar cachexy, somewhat analogous to the disease known by the names of lepra alba or alphos, and having for its essential character the partial or complete absence of the ordinary colouring secretion, which ought to be deposited between the layers of the skin and on the surface of the choroid coat; Blumenbach, Winterbottom, Sprengel, and others have taken this view, while on the contrary, Hallé, Jefferson, Beclard, Mansfeld, and Meckel (although the last-named author hesitates to decide,) regard albinism as the effect of an arrest of the normal development. If, indeed, we include under the term "cachexy" every irregularity or abnormal condition of the system proceeding from a deviation from the usual combinations of the solid or fluid parts, there can be little doubt that leucosis must be reckoned as such, especially since we know that even adult animals may be so affected by certain causes, inducing a drepraved state of the system, that the colour of the skin and hair, becomes speedily changed. Geoffroy St. Hilaire has satisfied himself, by repeated observations, that many animals, and particularly those of the genus simia, when long confined, and when their food is not quite wholesome, gradually lose their wonted colour, and fall into a state of imperfect leucosis. He found, also, that young gold fishes, if kept for some weeks in spring water, became nearly quite white. Every one has heard of the extraordinary effects of a sudden paroxysm of grief and terror in blanching the hair; and the almost constant occurrence of "silver locks" in old age, even among the dark races of mankind, seems to point to the operation of certain changes being effected within the animal system.

But certainly it is most erroneous to draw any analogy between leucosis and any exanthematous disease, such as lepra; for the skin of an albino, although of a pearly whiteness, does not exhibit any visible morbid change, save that of its colour; there are no scales, no excrescences, and there is no oozing of any discharge. In some parts, indeed, as in the Island of Sumatra, the albinos have been found affected with the leprosy—but this was a casual, not an uniform occurrence. If, therefore, leucosis be a disease, it is a disease sui generis, and one, too, which is peculiar to fœtal life; for no instance of complete albinism, supervening after birth, in an individual previously unblemished, has been ever recorded.

What adds exceedingly to the difficulty of ascertaining positively the remote cause of this anomaly, especially in the human subject, is the rarity of opportunities which ever fall to the lot of any anatomists, of examining very young embryos; and until our knowledge of the various steps or grades of development through which the intra-uterine being passes, before it arrives at its perfect formation, be much more exact than it is at present, there must be of a necessity considerable uncertainty on most embryological speculations. Dr. Seiler has been led to give the preference to the latter of the two theories above mentioned, by the following considerations.—1, Although the pigment of the eye is deposited at a very early period of embryotic life, it is not uniformly or equally so on the whole surface of the choroid and of its appendages; by far the greater portion being accumulated, at first, on its anterior part and on the ciliary processes, while the posterior part is almost quite free from it, and retains, therefore, a red colour; such an appearance is occasionally observable in the eyes of hydrocephalic children. There is, therefore, reason to suppose, that the pigment is altogether awanting in the very early stage of fœtal development. 2d, In the eyes of piebald horses, a very evident proof of an arrested formation is exhibited; for, in these, the pigment is limited to the corpus ciliare. 3, The skin of the embryo, in the first month, is destitute of any traces of pigment. 4, Most of the infusoria (those animals which are at the lowest step of the zoological series) are colourless, or have only a greenish hue. 5, The soft white hair (lanugo) of the albino, which remains with him during life, is analogous to the capillary system of a five months' fœtus. 6, The debility of body and of mind, which so very frequently characterizes albinos, is indicative of imperfect development of the natural powers. 7, It has often been remarked, that albino children have been in many instances the offspring of feeble and exceedingly delicate parents, whose formative energies, we may, therefore, reasonably believe to be below the healthy standard. Be this as it may, no one can doubt the surprising effects which vehemently depressing agencies will produce in altering, or even in altogether abolishing, the former colour of the body.

The limits of this paper prevent us from following our industrious author, in his description of the congenital malformations of the iris, uvea, &c. and leave us room only to allude to the occasional persistance of the membrana pupillaris, for several months, or even years, after birth. Probably, a few of our readers are aware that it is the prevalent opinion among our professional brethren in Germany, that the operation of restoring the blind boy to sight, which has given so much eclat to the name of our countryman, Cheselden, was, in fact, that of forming a pupil through the persistent pupillar membrane,

and not the operation of couching, or depressing a congenital cataract. That, however, the lens has in numerous instances been found to be cataractous at birth, no one will deny, when he regards the names of Beer, Saunders, and Ammon as vouchers for the fact. So long ago as the year 1810, Professor Walther, in his admirable treatises on medical subjects, threw out the idea that the lens was actually opaque during the early stage of embryotic existence, and that it became transparent only at a subsequent period; the inference from this doctrine is very obvious, viz. that in the event of it being proved to be correct, congenital cataract must be viewed rather as the effect of retarded development, than of positive disease. The later observations of Baerens, Ammon, and of Dr. Seiler, are, however, quite opposed to Walther's hypothesis, and do not at all warrant the supposition, that the lens is ever normally clouded. The researches of the second-named philosopher have induced him to trace the occurrence of congenital cataract to one of the following causes:—1, A morbid affection of the arteria centralis retinæ, or of its contents. 2, A thickening, the result of intra-uterine inflamation of the anterior, or of the posterior wall of the capsule of the lens. 3, A primitive disease, or dyscrasis, of the substance of the lens. Such a state may be connected with an hereditary taint, as that of scrofula.

That cataract may be transmitted from one generation to another will not be doubted, when the following case, authenticated by the testimony of Beer, is read.

The father had cataract—so also had his son. This son was twice married, and had families by each wife; and every child (the number amounting to eight or ten), with the exception of one, became cataractous before their twelfth year.

Congenital cataract is sometimes only partial, or affects but one point of the lens, while the rest of it is healthily transparent. This opaque spot is usually circular, and is seldom obliterated in after life.

Two lenses have been sometimes discovered in a cyclopic eye; but there is no well authenticated case on record, of the entire absence of all traces of the lens at birth.

Our abstract of Dr. Seiler's work must here finish, and we trust that, ere long, we shall find him once more in the list of authors. No one, who has perused his present performance as it deserves, will hesitate to acknowledge that he has derived much interesting and valuable information from it. It is an admirable compendium of all that is at present known, respecting the very curious and instructive subject of which it treats.

CONSUMPTION CURABLE; AND THE MANNER IN WHICH NATURE AS WELL AS REMEDIAL ART OPERATES, &c. &c. *Francis H. Ramadge*, M. D., F. L. S. Octavo, pp. 168. Four Plates. March, 1834.

To those who are practically acquainted with the subject of this volume, the first line of the title-page—"CONSUMPTION CURABLE"—will convey an im-

pression not very favourable to the work; but when it is remembered that its author was the public defender of St. John Long and his quackeries—the advocate of an illiterate Charlatan, who had been tried for manslaughter, or rather for womanslaughter—the scepticism, if not something worse, will assume the ascendant. But although Dr. Ramadge has few claims on the forbearance of either ourselves or the profession at large, we shall endeavour to dismiss from our minds all circumstances and reminiscences respecting the author, and examine the work solely on its own merits.

Our author finds fault with the late Dr. Young for giving a discouraging opinion respecting the curability of consumption. Dr. Y. thought that not more than one case in a thousand recovered without assistance—and probably not more than one in a hundred, even with the aid of medicine. The word consumption includes so many grades and kinds of disease, that little satisfactory can be gleaned from any numerical calculation on this subject. If by consumption, we mean tubercular excavation or ulceration, then we aver that Dr. Young's calculation is, by no means, too unfavourable. And if various other morbid states and conditions of the lungs are included, then there is a chaos of uncertainty, of which Dr. Ramadge appears to avail himself in support of his "CONSUMPTION CURABLE." But what shall we say to the following statement?

"It is my intention, in the succeeding pages, briefly to shew that this statement is unfounded in fact; and that medical treatment has, in not a few instances, tended to prevent, rather than advance recovery. I trust I shall demonstrate, in the histories of some of my cases, that recovery has been owing, in a great measure, to the supervention of some catarrhal disease occurring spontaneously through an apparently imprudent exposure to cold, after remedial agents had failed." *Introd.* iii.

First it is insinuated that medical treatment not unfrequently prevents recovery, and then we are told that catarrhal inflammation supervening on consumption is a remedy for the disease!!! This brilliant idea—this real *novelty*—is followed up, and appears to be the vital principle of the whole work!! Speaking of Dr. Young, the author remarks:—

"Had this hospital physician been accustomed to the examination of dead bodies, he would have discovered, in more than one-fourth of the adult subjects examined after death, cicatrizations indicative of cured consumption; and on finding these appearances, had he enquired of some near relative of the deceased if the individuals, at any period of their lives, had for a time expectorated blood—had been troubled with indomitable cough, night sweats, diarrhœa, with emaciation of the body—or had been regarded by their medical attendants as consumptive, he would probably have arrived at a more favourable conclusion." iv.

So, then, *one-fourth* of the adults who die of other diseases have been previously cured of consumption!! In another place Dr. R. tells us that one-fourth of those who die, die of this disease: thus, as a fourth *die* of consumption, and a fourth are *cured spontaneously* of phthisis—leaving out of the question the great numbers saved by St. John Long and Dr. Ramadge, it follows that more than half of our population have consumption some time or other in the course of their lives!!

In respect to these "cicatrizations" indicative of "cured consumption," we may observe that some pathologists who are very anxious to find in the

dead body what they are searching for—or what they predicted beforehand, will sometimes discover little puckered portions of lung which, to St. John Long—or to a writer on the sanability of phthisis, are a real God-send;—but have no more to do with consumption than with elephantiasis.

Our sapient author wonders that medical men have not noticed the non-liability of asthmatic people to consumption—and "that various species of catarrh are the instruments by which Nature chiefly arrests the disease, (phthisis.)"

"From long observation of the asthmatic state of the lungs, which is frequently witnessed on the dissection of persons, who, having recovered from consumption, have died from some other cause, I am induced to recommend artificial means to be early employed for the healing of ulcerous phthisis. After the careful examination of at least three thousand dead bodies, and after having had under my care many thousand consumptive cases, my fixed opinion is, that ulcers of the lungs are most effectually cured, and a fresh formation of tubercles prevented, by an expansion of the vesicular structure of the lungs; which it will be seen hereafter is, in many instances, brought on by chronic catarrh." vi.

This theory of catarrhal expansion of the air-cells of the lungs is a most happy and ingenious one for the practice in Harley Street—the artificial expansion by St. John Long's secret inhalations! The whole volume, indeed, shews that this most fortunate discovery was made, as it were, providentially, for the elucidation of the astonishing success of the ignorant quack and the learned FELLOW!

A theory, to be complete, must be tested in various ways. Thus the pathology must be corroborated by the etiology—and both, by therapeutics. Expansion of the air-cells (whether by accidental catarrh or St. John Long's inhalations) cures or prevents "CONSUMPTION." What occasions consumption? Why, contraction of the air-cells, of course—and this contraction results from the variable atmosphere of England—and the want of strong inhalations. Hence the salubrity of Harley Street—and the efficacy of the inhalers there!

"Now, when we take into consideration the peculiarly delicate conformation of the lungs, and their immediate susceptibility of every alteration in the atmosphere, we at once arrive at a resolution of the question. It is essential in order to maintain a healthy action and proper configuration of the chest, that our inspiration should be uniformly deep and full; but from the great inequality of atmospheric pressure resulting from the constant fluctuations of the weather, the depth and fulness of the inspiration are exposed to frequent diminution; and that play of the chest which is as requisite to a healthy state of the lungs, as exercise to muscular developement, is consequently subject to repeated checks. Thus owing to the want of due excitement, or more strictly speaking of proper exercise, the healthy functions of the chest become deranged, its expansion is restricted, its action languid, and by degrees its shape alters, so that instead of the bony compages of the chest being forced boldly out in a somewhat semi-circular form, and the sternum pushed forward, the ribs fall in, drawing the breast-bone backward in a situation nearer the spinal column than is the case in its natural movement. Now to bear out and verify the foregoing remarks by shewing how requisite the expansible power of the chest is to the healthy constitution of the lungs, I would state as almost an invariable law that the commencement of pulmonary consumption will be found to take place in the superior lobes of the lungs, owing doubtless to the small extension of the upper ribs as compared with the more complete movement of the lower. Another

singular instance confirmatory of the *novel view I am now taking of the subject*, is to be found in the exemption of asthmatic subjects from consumptive disorder. From the peculiar nature of their complaint, gasping for breath, and forced to *inhale* frequently, their lungs ever fully exercised, and the expansion of the chest which follows as a necessary consequence, preserves the sufferer free from the attacks of this still more dreadful malady." 7.

In justice to the author we must say, that *we* have marked in Italics what his own modesty would not permit him to lay an emphasis on—the *novelty* of the doctrine, and the utility of *inhalation*.

Dr. R. extends this doctrine to various classes of society—to the care-worn—to the victims of disappointed love, blighted ambition—and to those, "whose distemper *improper medical treatment* has unduly prolonged or confirmed." Shade of Miss Cashin! didst thou not, if permitted to wander in these upper regions, cross the mental horizon of Dr. Ramadge, the prompter and advocate of St. John Long, when he penned this last sentence? It seems that thou didst not—for the insinuation respecting *improper* medical treatment is not levelled against the *excoriator* in Harley Street, but against Dr. Ramadge's own professional brethren!

And how are the above-mentioned victims made to illustrate the new theory? Very easily. They are unable "to take inspirations of depth sufficient to keep up the necessary changes produced by the air on the venous circulation." Hence the necessity for expanding the lungs by St. John Long's inhalers.

"Following up the tenor of the preceding observations, we shall find that the benefit usually derived from a sea voyage, or change of air, is not so much due to the removal from an impure to a purer atmosphere *per se*, but to the stimulating effects produced on the respiratory argans, and the increased energy of the muscular powers of the chest, on which pulmonary dilatation is of course consequent." 9.

According to this doctrine, the consumptive patient should be sent to the Alps or the Highlands, there to inhale pure and stimulating air, while expansion of the air-cells would result from climbing the mountains!

We may pass over two short chapters on the common causes and the ordinary symptoms of phthisis; but the following highly valuable and most easy diagnosis of "CONSUMPTION" must be recorded in our pages for the good of humanity.

"The plan I always pursue, and indeed a most ready one, to distinguish consumption from pulmonary catarrh, with which it is most liable to be confounded, is to apply the ear to the posterior part of the chest, about two or three inches below the inferior angle of the scapula. Here, if the respiration be almost natural or slightly puerile, we can at once, and early, proclaim the case to be phthisical, though the patient may have a troublesome cough, and but few of the common symptoms belonging to consumption." 24.

Now, if natural, or almost natural respiration, two or three inches below the scapula, be an unfailing mark of phthisis, we do not wonder at the "sanability of consumption," both in Harley Street and Ely Place!

Passing over the chapter on morbid appearances, where we could not expect much new matter after the labours of Laennec, Bayle, and our own pathologists, we come to the fifth chapter, on prophylaxis.

Even before St. John Long made his appearance in the medical horizon, it appears to have been the practice of our author to prescribe generous living and invigorating diet to those who had any tendency to consumption. A sea voyage was also advised, with the hope that the saline particles in the marine atmosphere might act as a "stimulant to the lungs," and thus render the inspirations deeper. Another great hope from a sea voyage is the chance of the patient's *catching cold*—which is quite a god-send with Dr. Ramadge, inasmuch as the establishment of a "slight permanent catarrh" enables the patient to "bid defiance to phthisis." A stumbling block to the new doctrine is found in the fact that those musicians who play on wind instruments are peculiarly subject to consumption. But our ingenious author gets rid of this by the following reasoning.

Whoever will take the trouble to watch attentively a player on the flute, or clarionet, &c. will find that although the performer seemingly inspires and expires frequently and fully, yet that in point of fact he often makes several consecutive expirations to one inspiration. Thus his breathing, so far from being advantageous, and so far from developing the lungs, as I have previously declared well-regulated mechanical exercise will ever do, is indeed so irregular, and furtive, that it produces effects entirely the reverse, narrowing the chest, and confining the volume of the lungs." 71.

Well done. The flute-player injures his lungs by blowing out a great deal more air than he draws in! No wonder that he *expires* in the end by consumption!

We were a little amused at finding Lord Eldon among the *causes* of consumption, and Lord Brougham on the list of prophylactics. The reader will long for an explanation. Here it is.

"We are accustomed to look back with horror on the proceedings, recorded by historians, as having taken place in that iniquitous court, which went under the name of the Star Chamber. How then, judging by analogy, will our posterity execrate the records left them of the practice of the Court of Chancery. They will there read a piteous tale of justice withheld, of hope, the brightest boon of heaven, extended and protracted, until to look forward is to exclaim with Lear, "oh! that way madness lies." The ghastly train of diseases, consumption, cancer, and other fell destroyers of the human race, which I have seen brought on the wretched victims of the procrastination, until recently, the characteristic of this court leads me in common with the general voice to reflect with gratitude on the change that has been effected by the wise energy of one master-spirit. Had the reforms introduced by him, been adopted even a few years sooner, how many a fair fabric of human happiness would have been spared, that now lies dismantled, and overthrown!" 88.

After the specimens which we have given of our author's *doctrines*, we apprehend that our readers will not wish for a very extended account of Dr. Ramadge's *practice* in consumption. "There are but two modes by which we can hope to cure this disease: the one by rendering it chronic, and the other *by artificially enlarging those portions of the lungs which are pervious to air*." It is our author's great aim "to put an end, as early as possible, to the symptoms of hectic fever." This he successfully accomplishes, in many instances, by general and local bleeding. INHALATION is the other grand remedy. The principal on which this measure proves beneficial, is, our author avers, entirely misunderstood. It is not by the

application of vapour or medicinal substances to the diseased lungs that good is done, but by the mechanical dilatation of the air-cells, and the expansion of the chest.

We shall make one more extract and have done.

"Should there be catarrh in the superior bronchial tubes, of a duration sufficiently long only to heal ulcerations and cure the patient, he may months or years afterwards, if there be any cause assisting to impair the general health, be again attacked by consumption; but never can this relapse happen if the bronchial tubes be subacutely inflamed for a period sufficient to produce chronic dyspnœa or habitual asthma more or less severe. Half of those which are commonly regarded as cases of asthma, originate in consumptive disease whose progress has been arrested by the supervention of that affection; but in which neither fresh crops of tubercles nor hectic fever need be apprehended. Any individual indeed having asthma, from whatever cause resulting, is as perfectly exempt from consumption, as he who had been consumptive, but has afterwards had his disease merged into asthma. In a word, it may be confidently affirmed, that no asthmatic person need ever be afraid of becoming consumptive.

In order to promote expansion of the aërial tissue of the lungs, it is my usual practice in the absence of catarrh, and when congestion in the chest, and the symptoms of hectic fever have been diminished by small general bleedings, repeated at proper intervals, or by the application of leeches over the second and third ribs anteriorly, to advise inhalation as soon as possible. A drawing of a suitable apparatus will be found at the end of this work. There are few early cases of consumption, but what will be rapidly improved by this treatment steadily pursued. The disease being thus checked, the same changes will follow which are attendant on catarrh. The nodules of unripe tubercles will become innoxious in consequence of being surrounded by black secretion, or what has been called black pulmonary matter; and small cavities already formed will have their surfaces soon brought in contact so as to heal by what surgeons term the first intention. It is, we must own, preferable to effect pulmonary expansion by sure artificial means, rather than to depend upon the uncertain production of catarrh. And there is another important point gained, inasmuch as recovery takes place unaccompanied by any cough or difficulty in breathing, which generally attends those cures which nature herself now and then accomplishes by introducing this less fatal, yet distressing complaint. Inhaling performed two or three times daily, for half an hour each time, will in the space of a few weeks work a wonderful change on the chest; externally the muscles concerned in respiration will be manifestly enlarged, and the bony compages of the chest both before and laterally visibly increased; whilst, at the same time, the natural respiratory murmur will be heard internally, far more distinct than ever. Such has been the increase of size which the chest, in young persons especially, has undergone through the exercise of inhalation, that I have known a waistcoat which buttoned easily require in little more than a month to be widened. It is in fact incredible to one who has never been at the pains to measure the chest, or examine its shape, what an enlargement it acquires, by the simple action of breathing for the time above stated, backwards and forwards, through a narrow tube of a few feet in length." 105.

Of the cases in this volume we shall take no notice. Mr. A——, Mrs. B——, Master C——, and Miss D——, are all very well for the non-professional reader—and for him or her alone are they designed. They will answer the author's objects—and that is enough. We forgot to mention our author's ideas as to *climate* in consumption. He prefers St. Petersburgh to Italy, "a thousand times"—because, "in the latter, he (the

patient) has a chance of contracting catarrh, and of thus staying consumption." 132.

Of the plates we need say little. The first forms as good a representation of Vesuvius during an eruption, as any we have lately seen. A volume of flame is rising from the crater of the mountain, while torrents of molten lava are gushing from the side. Along the base are scattered fragments of pumice-stone, black scoriæ, and blue clay, such as we see in the neighbourhood of Herculaneum and Pompeii.

In this publication Dr. Ramadge has had sagacity enough not to mention the name of St. John Long, or allude to his cures. But he advocates the principles and practice of the quack—the stretching of the lungs by inhalation, and the restoration of the consumptive constitution by wine and good cheer. The Fellow of the Royal College of Physicians has set his professional brethren at defiance, and cast himself on the ignorance and credulity of the public. The reward at which the author aims is best known to himself, but we venture to predict that it will be any thing except professional reputation, in the true sense of the word.

A PRACTICAL TREATISE ON DISEASES OF THE JOINTS. By *W. J. Wickham*, Surgeon to the County Hospital, Winchester. 8vo. pp. 178. Winchester, 1833.

MR. WICKHAM, an industrious and an able provincial surgeon, informs us in his preface that he has devoted his attention to the investigation of the diseases of the joints for the period of sixteen years. He has enjoyed extensive opportunities of observation in the county hospital to which he is attached. He acquaints us also that he has made little use of the works of former writers, and trusted, "perhaps too much," to his personal sources of information.

The plan of Mr. Wickham is to treat, in order, of the morbid affections of the various tissues which enter into the composition of the joints. He considers, seriatim, disease of the bony structure—of the cartilage—of the synovial membrane—of the cellular tissue—of the ligaments. He concludes by a notice of the general terminations of articular disease, and by a separate chapter on disease of the hip-joint.

We shall endeavour to glean from the work before us those portions which derive a particular interest from the personal observation or experience of the author. So much of the descriptions is necessarily indistinguishable from that of other and preceding writers, that we should not be justified in offering a complete and consecutive analysis.

Mr. Wickham commences his account of the diseases of the bony structures of the joints by remarks on exostosis.

He adopts the division proposed by Sir Astley Cooper in his Surgical Essays, into the periosteal and the medullary exostosis. The former he seems to consider as in all cases a simple growth, the latter as usually malignant. We feel disposed to doubt the justice of this absolute distinction,

for reasons which we shall state after laying before our readers the opinions of Mr. Wickham. He observes with respect to periosteal exostosis, that—

"The bony tumour, or exostosis properly so called, which has a circumscribed origin from beneath the periosteum, is of rare occurrence within the capsular ligament; such tumours more frequently form externally to the joint, and proceed, by their excessive and inconvenient growth, to impede its motions.

I have seen small exostoses on the patella, also on the epiphysis of the tibia.

On the humerus and fibula I have seen them on dissection; close upon the shoulder-joint in the one case, and on the ankle in the other, and projecting towards the articulations, so as to cause considerable inconvenience.

A young woman underwent the removal of an exostosis by my friend and colleague Mr. H. Lyford; its size and shape were that of the little finger. Its origin was just without the capsular ligament of the shoulder-joint, on the fore and inner part of the humerus; the direction of its point was upwards and inwards, towards the clavicle and sternum. It had already extended far enough to impede the motion of the joint in some degree. The action of the pectoralis was thereby somewhat hindered, so that when the arm was attempted to be brought inwards by that muscle, it locked at about half its action.

The operation was easy, the tumour breaking off under the pressure of the hand. The recovery of the motion of the joint was complete. The nature of the tumour was that of the periosteal exostosis of Sir Astley Cooper. Otherwise than by its inconvenient position, the character of the tumour was perfectly innocent.

The bone spavin, which is a frequent cause of lameness in the horse, answers to the description of the periosteal exostosis.

I have never known this species of disease lead on to the destruction of the other textures of the joint." 8.

Mr. Wickham refers to an extraordinary instance of spiculated exostosis related in the 41st volume of the Philosophical Transactions. Every joint with the exception of the wrists and knees, was anchylosed by the osseous productions extending from one bone to another.

Mr. W. has ornamented his work with a copy of the original drawing of this curious case. Perhaps it is more adapted to excite a smile than to gratify scientific curiosity. Mr. W. alludes to a case of Mr. Freek's, in which the exostoses branched like coral, projecting from the vertebræ of the neck, along the whole length of the spine, and proceeding to join corresponding productions which arose from the ribs. The luxuriant depositions of bone after injury, and the new bony sockets which attend on unreduced dislocations are glanced at by our author.

He observes that the symptoms of this form of exostosis are such as its mechanical situation or form occasion by their disturbance of contiguous parts. No remedy exists, with the exception of removal by a surgical operation, the propriety of which must be determined by circumstances and the judgment of the surgeon.

Such is Mr. Wickham's account of the periosteal exostosis. He next adverts to the medullary variety.

This, according to Sir Astley Cooper, has its origin from the medullary membrane of the bone. It is called by some osteo sarcoma, consisting of a fleshy tumor, intermixed with a deposition of bony matter. It may form in any bone, but Mr. W. believes that the maxilla, humerus, and femur, are most subject to it.

"I am much inclined to believe that this disease, although malignant in its

action, yet communicates none of its specific characters to the other structures of the joint: it raises an inflammatory process on whatever texture it may exert a pressure; but the inflammation thus produced will not differ from the ordinary inflammation of the respective structures. In the cartilage it produces absorption—in the synovial membrane increased vascularity—in the cellular membrane such a deposition as is seen under inflammation caused by other circumstances, but in none the peculiar characteristics of malignant structure." 12.

Mr. W. observes that this disease is not painful in its early periods, but the pressure it produces on sensible parts renders it very much so in its subsequent stages. In its origin the diagnosis is obscure, it becomes more clear when the disease has attained some degree of magnitude. When the tumor has commenced at a little distance from the joint, it will generally have displayed its formidable character before it reaches the articulation. The constitution sympathises with this, as with all malignant diseases. No general treatment effects its cure, and operations are too commonly unsuccessful.

We stated that we doubted the strict propriety of the views of Sir Astley Cooper on periosteal and medullary exostosis. The inexperienced surgeon would be led to the conclusion, that the former is never, and the latter always of malignant character. That this conclusion is not exact will be evident, from the mention of a case which occurred at St. George's Hospital. The patient, a young woman, had a tumour in the upper part of the thigh, which had most of the characters of fungus hæmatodes. The limb was amputated immediately below the joint by Mr. Keate. The tumor proved to be of fungoid nature, and it sprung from the periosteum of the femur. In another instance, a similar tumor arose from the periosteum of the lower end of the same bone.

The fact would seem to be, that malignant growths may originate in any texture of the body, though probably the cellular constitutes their most universal nidus. The cancellous structure of the bone is certainly more disposed to their formation than the surface or the periosteum. Yet the latter is not altogether exempt, and, therefore, the doctrine that periosteal exostosis is simple, and medullary exostosis malignant in its nature, must be looked on as only generally true.

There are more varieties of exostosis than those which have been enumerated by our author, Mr. Wickham. Some appear to spring from the cancellous structure, although evincing no malignant tendency. Others arise from the periosteum, or from between it and the bone, and displayed a radiated character. We are not in possession of a really good account of exostoses, and the profession would feel indebted to any surgeon who would offer a lucid and complete arrangement of their numerous varieties.

Mr. Wickham passes to the subject of necrosis. His remarks are ingenious, but are not possessed of sufficient novelty to demand particular attention. We will merely advert to one practical point. It is this—that in cases of disease of the bony structures, whether that disease be caries or necrosis, Mr. Wickham has observed a disposition to frequent attacks of inflammation of the skin over the joint, of an erysipelatous character.

"This is a circumstance which I do not speak of as an established symptom of diseased bone, but I have seen it so constantly accompany it, and so seldom occurring when the other textures are alone diseased, that I lay great stress on

it as indicative of a morbid state of the bony parts of the joint. I would wish it to be understood, that although the conviction on my own mind is strong as to the co-existence of this disposition to a superficial inflammation and affection of the bone of the joints, yet I am desirous only of leading others to observe for themselves. Where necrosis occurs in the continuity of the limb, I have likewise remarked the same inclination to repeated attacks of inflammation of the skin, and apparently recurring on the dislodgement of dead bone, or particular efforts in the part to get rid of the malady. When the joint is secondarily affected, in consequence of the extension of disease from the body of the bone, the existence of this complaint is self evident long before the joint becomes involved, and needs no particular hint to discover it." 20.

There can be no question that erythematous or erysipelatous inflammation of the surface, is a frequent attendant on disease of deeper parts. Thus, in cases of inflammation of the brain and its meninges, after injury of the head, it is not uncommon to observe an erysipelatous redness of the scalp. In cases of the purulent deposites in the joints, we have frequently noticed an erythematous redness of the skin, indeed we have seen the latter mistaken for rheumatism or gout. When we state these facts, the doubting reader may receive the statement of our author with less suspicion than, otherwise, he might feel disposed to extend to it.

From necrosis we slip, by an easy gradation, to caries, which occupies twenty pages of the work. Mr. Wickham is probably unused to composition, for this and other chapters are not arranged with that connected clearness which characterizes the practised writer. Mr. Wickham concludes the subject by an admission, with which we shall venture, by transposition, to commence.

"The scrofulous affection which Mr. Brodie has described as originating in the cancellous structure of bones, does not appear to me to be a distinct and separate disease from that which I have described under the heads of necrosis and caries; but that the morbid softness which he has rightly designated as scrofulous, is to be found wherever necrosis or caries exist in a scrofulous habit of body. It seems to me to be a modification of that mollities ossium which is observed in extreme instances of scrofulous disease, but in these cases confining itself merely to the articulating ends of the bones.

I have in very many instances witnessed this state of the epiphyses, the accompaniment of necrosis or caries, also where both have occurred together in the same bone. I have also dissected several joints in the same subject, in which their bones at the ends could be cut through with a knife, yet no progress had been made towards even the least diseased action.

I am inclined, then, to regard this morbid state of the bones to be that state favourable to, and often the forerunner of caries or necrosis; but not as a diseased action sui generis." 42.

Mr. Wickham appears to misconceive, in a slight degree, Mr. Brodie's views. The latter describes an affection frequently observed in persons of a scrofulous habit of body, and displaying the following series of phenomena:—First, the cancellous end of the bone is more vascular than natural; secondly, the cells are occupied by a yellowish deposite, the vascularity being diminished, and the bony matter so far absorbed that the part may readily be cut with a knife; thirdly, ulceration occurs in the morbidly-altered part, and caries or necrosis, or both, supervene.

Now, Mr. Wickham might discover a preternatural softness in the ends of many bones in the same individual, unaccompanied with any farther dis-

ease, and yet the discovery would not militate against the justice of the views of Mr. Brodie. That gentleman makes yellowness and softness of the cancelli the iniatative of caries. As such, it may, and it often does exist, before caries is established. Nothing is more common than an instance of this description :—A scrofulous patient has a limb removed for caries of one of the bones of the ankle. On inspecting the articulation, the lower end of the tibia, we will say, is carious, or a part of it is dead. The contiguous portion is soft, and exhibits the yellow deposit. But the fibula and the astragalus, nay, the tarsal bones unconnected with the ankle-joint, are extremely softened also, and disclose the same yellow deposition as the tibia, although they are not attacked with caries. The experienced surgeon would scarcely doubt that the latter would have ultimately followed, had the morbid process been permitted to continue.

We recommend our readers to consult the work of Mr. Brodie, and to weigh the amount of evidence upon the subject adduced by that philosophic writer.

To revert to Mr. Wickham's description of caries. He observes that it consists of a morbid absorption of the bone, a condition analogous to ulceration of the soft parts. It is for the most part the result of inflammation and abscess of the periosteum or medullary membrane ; but it is occasionally seen without the least appearance of purulent matter, and without any vestige of inflammation. This disease, as well as the forementioned affections, have their origin either within or external to the capsular ligament.

Mr. W. remarks that primary caries within the capsule is of rare occurrence, ulceration most commonly commencing in the cartilage, and spreading from that to the bone. But the caries which originates in the head of the bone, and constitutes the "scrofulous disease" of Mr. Brodie, is certainly not rare. That disease is more common in youth than in after life, and in youth, the articulating head is an epiphysis. Whether caries, commencing in the latter, is considered by Mr. W. as an instance of caries within the capsule, we feel at a loss to determine.

"Of the cases of caries which have their origin external to the capsule, and, ultimately, proceed to the implication of the joint, they are of two kinds: the one originating in inflammation of the periosteum, the other in inflammation of the medullary membrane within the bone. The periostitis at first confining itself to the membrane covering the bone, by continuance leads to the formation of matter on the outer table of the bone, to its absorption, and to the transmission of the inflammatory action to the interior, by which matter has an extensive range within the cavity and the extremities of the bones, from their greater extent of surface within, become more entirely occupied by it. At this time, diseased action having gone thus far, having had its commencement without, is on a par with disease which begins in the medullary membrane. The epiphyses become absorbed at their internal table, and a deposit takes place on the outer surface, which gives to the bone a feeling of expansion; it is this that has given rise to the term *spina ventosa*." 26.

Periostitis, therefore, may give rise to caries, as it does to necrosis, or to both. Of this all surgeons are aware. But Mr. Wickham seems to attach more importance to the form of caries which commences by inflammation of the medullary membrane, and abscess within the cancellated structure of the bone. He identifies this with the disease which has been termed the spina ventosa—"the true white swelling."

"Although I would not profess myself to be an adherent to such ancient terms, and retain these as the most appropriate to our modern nomenclature, yet I would regard them as significant of certain changes which take place in bones, and of certain states of constitution, in which this disease particularly occurs; such as have been very long observed. The term *spina ventosa* expresses that expansion of the bone which is supposed to exist because of the enlargement which actually takes place; and the term white swelling marks that weakness of constitution which is so evident in a scrofulous habit of body, in which this disease most frequently exists." 29.

We cannot agree with Mr. Wickham in the propriety of retaining either of these terms. The first is the expression of a pathological lie, the other is so vague as to signify nothing. If there is caries, term it caries—if necrosis, name it such—if abscess, call it abscess—but do not retain an absurd, and therefore a mischievous nomenclature, which has been a source of error and confusion. Spina *ventosa* implies, if it means anything, that the bone is inflated by aerial matter, a supposition which we need scarcely say is ridiculous. On the other hand, the term *white-swelling* cannot be said to mark that weakness of constitution so evident in a scrofulous habit of body, inasmuch as it attends affections of the joints not connected with scrofula in any way whatever.

Mr. Wickham remarks that the symptoms of caries originating above the capsule are by no means obvious. They resemble those of ulceration of the cartilage, but are more severe, and, as in necrosis, there is a great disposition to frequent attacks of erysipelatous inflammation. This circumstance, however, is not sufficiently determined to constitute a diagnostic mark on which much reliance should be placed.

"It will be found that the pain is deep in the joint, and in one determined spot; that there is also a remote aching pain of the limb; that these pains are much aggravated on pressure or friction of the diseased surfaces: that the pain of the joint is of the pricking character, and as if some animal was eating the bone away.

These symptoms are at first unaccompanied by swelling, which only occurs as the other structures may be effected: neither is there at first deformity of the joint, which only appears as a subsequent symptom on the destruction of much of the bony part of the articulation, or under continued muscular action, after the ligaments have become loosened from their natural holds." 33.

The symptoms of caries extending from the body of the bone to the joint, are so manifest as not to require description.

The characters of medullary inflammation and spina ventosa are not so readily understood at first, from the depth of pain, and the want of any external mark of disease in the commencement. Mr. W. relates four cases of this variety of caries. The following is a notice of the morbid changes in an elbow-joint affected with the malady. The extremity of the ulna, the olecranon especially, was greatly enlarged, and the interior of the bones at these parts much excavated, as if worm-eaten, the cartilages were quite destroyed, and the other parts much altered; the condyles of the humerus were involved in the same disease.

Mr. Wickham gives an instance of the combination of caries with necrosis. It forms a fair illustration of what has been denominated spina ventosa prior to destruction of the joint.

Case. The patient, aged 18, was admitted into the hospital, November 30th, 1831. Two months previous to his admission an abscess formed anteriorly on the upper part of the tibia, and having discharged a considerable quantity of matter, eventually healed. The bone, at the time of his admission into the Hospital, was enlarged for almost one-third of its upper part. The integuments covering the part were discoloured, and in an unhealthy condition. Successive blisters were directed to be applied over the seat of disease; the constitution, which was debilitated, by previous illness, being supported by bark and a generous diet. This treatment was pursued for six weeks, when the patient began to complain of an aching pain in the knee, which was much increased by pressure under the patella. The tumefaction of the knee was evidently increased, and the head of the tibia somewhat more enlarged. An issue was ordered in front of the tibia, two inches below the knee-joint. This produced a very beneficial result, and the inflammation which had threatened the joint was completely arrested. Three weeks afterwards the leg was attacked with erysipelas, which was so severe as to cause the death of the boy.

On inspection of the joint, the marks of incipient inflammation were present on the synovial membrane, the other parts of the joint being in a healthy condition. The head of the tibia was much enlarged, very rough, and the inner surface carious, the ulcerative process having thinned the walls of the epiphysis considerably. The cancellated structure was necrosed.

The treatment of caries should consist of local abstraction of blood, by means of leeches, in the first instance, and the employment of the caustic issue afterwards. Perfect rest must be enjoined, and maintained by mechanical means, such as splints, a convenient angle and position being chosen. Occasional leeches and cold applications are not unfrequently required for the repeated attacks of superficial inflammation.

"If it is found that an outlet can be given to the small carious fragments, or to purulent matter within the bone, incision or the trephine should be applied at that part which seems to offer as the most eligible. In these cases it is desirable to remove the whole carious surface to induce new granulations from the sound bone, not to rest satisfied with simply dislodging the purulent matter, or the necrosed bone." 41.

This is an important piece of advice, and one which should be treasured in the minds of surgeons. Limbs have been lost, from the neglect of the trephine. The instances of abscess in the cancellous ends of the tibia, related by Mr. Brodie in the last volume but one of the Transactions of the Medico-Chirurgical Society, are remarkably in point. In cases of necrosis of the tibia the trephine is very useful. In short, if the surgeon suspects the confinement of matter in a bone, or dead bone locked up and proving a source of irritation, it is his duty, if the parts are accessible to an operation, to set the offending substance free. The trephine is to the hard parts what the lancet or the scalpel proves to the soft, and should be used, with reservation, upon similar principles.

When we cast a retrospective glance at the chapter we now quit, we perceive that Mr. Wickham has succeeded in directing the attention of the reader to the characters and varieties of caries. It is an affection deserving of consideration and attention, and one which is probably far from exhausted.

But we feel some hesitation in admitting what the reasonings of our author seem intended to imply, that the spina ventosa, such as he describes it, constitutes the ordinary strumous disease of the articulations, or, in other words, "the true white swelling." Independently of the consideration that the idea is not borne out by a sufficient number of well-recorded cases, we cannot shut our eyes to the evidence contained in the works of Mr. Brodie, and the facts that Nature constantly presents. It is true that caries of the osseous structure is more universally and strictly scrofulous than disease of any of the other tissues that enter into the constitution of the joints. But the question that occurs is—whether that strumous disease of the bone be commonly such as Mr. Wickham or such as Mr. Brodie has described. With the utmost respect for the former gentleman, we adhere to the opinions of the latter. It is not from mere deference to authority that we do so, but because the many cases we have witnessed in a large hospital have been perfectly confirmatory of the views of the able surgeon we refer to.

Our readers will observe that caries of the articulating ends of bones may occur under several and different circumstances. It may result from the extension of inflammatory action from the cartilages or the other tissues of the joint—it may originate in the cancellous structure of the bone, as a sequence of ordinary inflammation of that structure—it may occur in the manner described by Mr. Brodie, under the denomination of scrofulous disease of the articulation—it may follow periostitis or disease of the bony shaft. They will also remark that, under any of these circumstances, the caries or ulceration may be complicated with necrosis, or more or less extensive death of the bone—that abscess may coexist in the joint, or the soft parts—and that, in some cases, an abscess may form in the cancellous tissue alone, independently of any affection of the joint. It is especially in the latter instance that the use of the trephine is demanded.

The profession do not appear to be generally aware how serviceable the trephine is in case of necrosis. If the surgeon waits till the sequestrum comes away *sponte suâ*, or till Nature has established such outlets that it may do so, the case is protracted, to an unnecessary duration. But if he anticipates the natural process, by trephining the new bone as soon as it it has acquired sufficient strength to support the limb in an adequate degree, and by removing the sequestrum through the artificial opening, he saves the patient much time, much suffering, and much injury to the powers of the constitution.

Mr. Wickham proceeds to diseases of the cartilage, and from them to inflammation, acute and chronic, of the synovial membrane. The researches of Mr. Brodie have left so little to be done upon these heads, that we cannot be surprised at our author doing little. Three incidental points are all that we shall notice.

Mr. W. remarks that ulceration of the cartilage occurs more frequently in the hip than in any other joint. We doubt the correctness of this observation. We should feel inclined to consider the knee-joint as that most frequently attacked.

He observes that chronic disease of the synovial membrane is very common in the lower joints of horses, that have been subjected to constant battering on hard roads.

The remaining point of the three to which we alluded is connected with the influence of mercury upon the system.

"It has been remarked," says Mr. Wickham, "that the action of mercury on the constitution leads to the production of this affection. How far it is the specific change affected by this remedy on the membranous structure, or that in common with other depressing causes it induces a condition of the system particularly favourable to the production of synovial inflammation, I cannot decide. It renders the system peculiarly susceptible to the impression of cold, and cold is one of the principal causes of this attack." 80.

Inflammation of the synovial membrane occurs under two sets of circumstances—in combination with venereal symptoms requiring mercury, and with those cachectic symptoms too frequently brought on by the abuse of that mineral, and contra-indicating its employment. The latter is the more frequent, and the surgeon would commit a lamentable error who should put the patient under the influence of mercury, for synovial inflammation of this low character.

It is rather singular that Mr. Wickham makes no mention of calomel and opium nor of colchicum in the treatment of acute synovial inflammation. They are both, to say the least, important remedies. Neither does he draw attention, at least not distinctly to the secondary inflammations of the membrane which follow injuries and operations.

Mr. Wickham devotes fourteen pages to the consideration of disease of the cellular membrane of the joints. Some of our readers may remember that a few years ago we reviewed a paper on this subject from the pen of a French surgeon. The object of that writer was to prove, that the affections of the cartilage and bone most commonly originate in the cellular tissue external to the articulation. In that he certainly failed. Inflammation and its consequences frequently invade the cellular tissue, as a consequence of disease of the deeper parts, but although the reverse occasionally happens, we have no precise data for its frequency, nor any unexceptionable account of the process.

Mr. Wickham divides the inflammation of the cellular tissue of the joint into two varieties;—that which attacks the cellular substance within the joint, and that which occupies the cellular substance that invests the capsule. In the former case the swelling is but slight, in the latter it is considerable, and the disease is generally more active in its progress.

"The first stages of inflammation of the cellular membrane, whether superficial or deep-seated, whether circumscribed or having an extended range around the joint, are nearly the same, differing only in degree. The swelling of the joint is equable and firm, and as the skin becomes placed on the stretch, becomes shining and white; this stage, which may be called the adhesive, will last sometimes for many months, and produce very great irritation on the general system. As the skin becomes placed on the stretch to a great degree, its sensibility is much quickened, and the sufferings of the patient consequently much aggravated, the person not being able, at times, to bear the weight of the bedclothes. I have been entreated, on this account, to make an incision of some length, with a view to relieve the tension and pain which accompany it. The pain, until the arrival of this symptom, is more obtuse, and oftentimes but very slight.

The duration of this stage varies very much, but the approach of that which is attended by the suppurative process, is for the most part marked by the usual constitutional symptoms, indicating the formation of the matter such as rigors, and succeeding heat and general febrile paroxysms, which assume, if the sup-

puration be large, an hectic character. It sometimes happens that the constitutional disturbance is so great as to require the removal of the limb, and that before any other structure is implicated; but it is more common for inflammation to propagate itself by contiguity to the synovial membrane, and afterwards to the articulating cartilages, when it becomes confused with the peculiar symptoms attendant on disease of those parts.

Two kinds of cases are presented to us by disease of the cellular membrane; the one in which a single or more spots may have been the seat of the inflammation, having its origin from some injury which the part may have received, and pursuing a chronic course to the formation of small sacs of pus in those situations, which perhaps ulcerate through the synovial membrane. The second case is that in which the whole of the cellular membrane surrounding the articulation becomes inflamed, and ultimately envelopes the joint in one large abscess. The first case is the more common of the two; the latter the effect of a sudden attack of inflammation, and more active in its course." 86.

Mr. Wickham relates some cases illustrative of his descriptions. The following is an instance of the first form of cellular disease.

Case. Maria Pratt, admitted into the Winchester Hospital, Jan. 9th, 1822. The left knee-joint was greatly enlarged, hard and elastic to the touch, the skin over it very tense and shining, and (with the exception of marks which had been produced by issues and other remedies) of a whitish hue. Her pain, at the time of her entrance to the hospital, was very severe, and had been so for a considerable time. It was deep on each side of the patella; her idea was that she could cover each place with a shilling-piece. She had suffered from the disease for two years, and anxiously submitted to amputation of the limb. Dissection of the joint shewed the cellular texture and parts external to the joint, indurated and converted into a firm jelly-like mass, having somewhat the appearance of the horn of brawn. Three sacculi of matter were found in the front of the joint, two on one side, and one on the other side of the patella (the original seat of pain;) one sac was on the point of ulcerating through the synovial membrane. That texture appeared perfectly healthy, and the cartilages and bones were without any change from their natural state.

In another case, in which amputation was performed by Mr. Wickham's father, examination of the limb disclosed these particulars. The knee was immensely swollen by a firm and hard mass, under which the sac of an abscess was found, passing nearly half way up the thigh, along the rectus muscle; the whole circumference of the joint was also occupied by this sac. The discharge had been very copious. The synovial fluid was, by the irritation of matter external to the capsule, somewhat increased, but the vascularity of the membrane was not apparent, neither did any disease shew itself on that structure or any other part of the joint.

In a case in which the disease was observed as it passed through all its stages, dissection displayed its formidable ravages. The cellular substance was about an inch thick, firm and jelly-like; an abscess on the fore part, and on each side of the joint, of very considerable size, and communicating with the cavity by an ulcerated opening at the upper part; the synovial membrane was vascular and flocculent, the cartilaginous surfaces in several parts ulcerated, and that on the inner side of the patella laying bare the bone, which was somewhat carious. The direct ligaments appeared alone to be uninflamed.

The causes of the complaint are stated by Mr. W. to be injuries, or the application of cold.

The treatment is obvious:—local depletion for the early stage of the complaint—rest for all. Friction has been found by our author prejudicial, counter-irritants have been rather productive of mischief than advantage. But he speaks highly of Mr. Scott's plan of moderate pressure, combined with the application of mercurial and camphor ointment.

The preceding remarks are interesting and important, being calculated to direct attention to a form of disease, which, though not so frequent as affections of the proper tissues of the joints, is still of occasional occurrence, and must not be forgotten nor neglected. It must be owned that the symptoms laid down by Mr. Wickham are not sufficiently distinctive to preclude all risk of misconception. The equable and firm swelling of the joint, and the glossy and white appearance of the skin, are characters not unfrequently observed in cases of ulceration of the cartilage. Probably the main diagnostic features would be found in the pain on motion or on handling of the surface, unaccompanied with a corresponding degree of suffering on pressure of the articulating surface of the tibia and the femur, or of both those bones and the patella. The latter is a prominent symptom of ulceration of the articular cartilage, with which the chronic cellular disease is most apt to be confounded. We have at the present moment a lady under our care, in whom the history of the disease leaves little doubt that it commenced with inflammation in the cellular tissue; at present there is, unfortunately, ulceration of the cartilage with abscess of the joint.

Acute inflammation and diffused suppuration in the cellular membrane external to the joint, is not uncommon as a consequence of cold in persons of debilitated constitution. We have seen many fatal cases of this nature. The joint became affected in all. Our space will not permit us to speak more at large on this affection here, but perhaps we may return to it at a fitting opportunity, and lay some remarkable cases before our readers. In conclusion, we beg again to draw attention to the observations of Mr. Wickham.

Diseases of the ligaments next occupy the attention of our author. Like most practical surgeons he has come to the conclusion, that though they may be liable to primary disease, they are usually found to be the last of the articular tissues which suffer. We extract a few notes on relaxation of the ligaments.

"Boys are frequently brought to the Hospital, from the country, who have followed the plough with boots of an immense weight. They have lost the arch of the foot, and the astragalus falls to the ground, protruding inwards. At the same time the muscles of the leg (the gastrocnemii) are wasted. These boys walk principally by the muscles of the thigh, dragging their leg, rather than lifting it, in progression.

We see frequently, also, the knees of young persons turning inwards by a lateral inclination, the internal lateral ligaments yielding to an irregular and unnatural pressure. From this cause I have seen a young man whose left leg was so affected by this lateral inclination, that the leg was nearly at right angles with the thigh. Yet, with this extraordinary deformity, no disease existed." 100.

The treatment can only consist in avoiding injurious practices or habits—

in obviating the influence of weight on the weak part, and in giving it a different direction—and in imparting general health and vigour.

Our author proceeds to the general terminations of diseases of the joints —abscess—anchylosis—and constitutional implication.

Mr. Wickham observes that abscesses not uncommonly form in the muscles at a considerable distance from the joint, and that when the original disease in the latter shall long have been quiescent. Their magnitude is often very considerable where they form among the large muscles in the neighbourhood of the hip and knee. Mr. W. has known an abscess amongst the extensor muscles of the thigh in a case of diseased knee, reach to within three inches of the hip-joint.

"It may be observed that such collections of matter most frequently happen amongst the extensor muscles, which move the lower bones of the affected joint. This is a fact which to my knowledge has not been noticed, but it seems to me to deserve attention, inasmuch as it explains the cause of dislocation which happens by the forcible contraction of the flexors, the power of the extensors being destroyed. In the disease of the hip joint, the glutei are for the most part the seat of abscess. When the knee is affected, abscesses generally form in the bodies of the rectus femoris and vasti. When the elbow is diseased, matter forms in the triceps extensor cubiti. These collections of matter do not occur so frequently in the neighbourhood of the smaller joints, which are surrounded by tendons, rather than the bellies of muscles, and have the cellular substance more condensed.

It is the destruction of the extensor muscles by inflammation and abscess, that leads to the dislocation which occasionally happens by the contraction of their antagonists. The power of one set of muscles being destroyed, the action of those opposed to them is thereby induced, and rendered involuntary and permanent." 106.

In speaking of anchylosis, which, our readers are aware, may result from three causes—muscular contraction—effusion of lymph—and deposition of ossific matter, Mr. Wickham adverts in a forcible manner to the former. If one class of muscles, the extensors, become wasted in the progress of the malady, their antagonists will act and of course will tend to displace and to dislocate the limb.

"In the progress of disease of the shoulder, the deltoid becomes wasted, and anchylosis, with a *partial dislocation*, is produced by the powerful action of the pectoralis and lattissimus dorsi acting in concert. In cases in which the elbow is the subject of disease, the triceps extensor cubiti is found wasted and gone, and the biceps shortened and rigid, the arm becoming anchylosed at right angles. In extreme cases the condyles of the humerus are seen to project, giving the appearance of a partial dislocation of the radius and ulna forwards. After disease of the wrist, the hand will be permanently flexed, turned with the palm upwards towards the fore part of the arm. In the fingers every one will have observed the rigid contraction of the flexor tendon when any joint has been diseased and become stiffened. In the ankle a semiflexion is performed, the sole of the foot turning inwards." 112.

It is the duty of the surgeon to be acquainted with this circumstance—it should be his object to prevent it by suitable position and mechanical contrivance.

The principles of treatment of anchylosis laid down by Mr. Wickham are judicious. We fear, however, that he leans too much to friction and to force.

Our author occupies two or three pages with the question of amputation. The concluding forty pages of the work are dedicated to the description of disease of the hip-joint. The chief points of interest connected with this disease are the apparent elongation of the limb in its commencement, and the shortening at its conclusion.

The first has been proved to be deceptive in its character. The general opinion on its nature is this :—that the pain on motion and progression induces the patient to relieve the affected joint by bearing his weight on the unaffected limb, that this, after a time, gives rise to lateral curvation of the spine, which establishes and increases the apparent deformity.

"The opinion generally entertained at this present time is, that the appearance of elongation arises from the distortion of the spine, by a descent of the pelvis on the affected side, in consequence of the patient throwing the weight of his body on the opposite limb—an effect rather, as it is said, produced by the habit which the person contracts in walking than by the existence of disease of the spine in connexion with that in the hip-joint." 148.

We doubt whether the majority of surgeons entertain this opinion, to the extent expressed in the preceding passage. The opinion in question has rather reference to an advanced, than a *very* early state ; for, as position produces the distortion of the spine, and is not altered, but only maintained, by that distortion, it follows as a deduction, both of reason and of logic, that at first the apparent elongation of the limb is independent of actual curvation of the spine. However this may be, Mr. Wickham's explanation of the circumstance is ingenious, and probably in many instances, correct. It is this. He starts by admitting that, in some cases, there is lateral curvature of the spine, and alteration of the horizontal plane of the pelvis, but he denies that this is the usual condition.

"The deception is, I conceive produced by the position into which the limb is thrown by rigid muscular action. It will be observed that the leg is projected away from its fellow, and the toe is turned a little outwards, so that a person comparing the two legs will bring the sound towards the affected, rather than by great force and consequent pain, draw the inflamed limb towards the sound one. Thus the sound leg does not traverse the median line without losing from an inch and a half to two inches of its length. If this be admitted as a sufficient explanation of the deception as to the actual lengthening of the diseased leg, our next inquiry will be to ascertain the cause of the rigid muscular action which projects the foot so far away from its fellow and leads to the appearance.

The muscles which extend the thigh upon the pelvis, which carry the thigh backwards and outwards away from the opposite limb, are the glutei, aided by the rotators, which act in concert with them.

To the inordinate and powerful action of these muscles, then, I attribute the projection of the limb outwards. That they are capable of this effect, their ordinary action clearly points out. That they do produce this effect appears to me reasonable, from the following circumstances. Towards the termination of the first stage, and throughout the after periods of diseased hip, we find the glutei muscles undergoing some change ; the first observable alteration is their wasting ; the second, perhaps, is the formation of matter in their substance, and their total obliteration.

Thus we see these muscles engaged and involved in the progressive stages of diseased hip, by very palpable and evident alteration of structure. It may be hence argued, and it is to be supposed, if not beyond doubt, that some active state has preceded that of wasting ; and it is to me equally evident, that the

inordinate action of the glutei which throws the limb outwards, is that state which precedes the wasting of these muscles. I consider, then, that the glutei muscles, from their contiguity to the inflamed joint, become irritated to excessive action, which projects the leg outwards, and that this action is the cause to which the apparent lengthening of the leg may be fairly and entirely attributed." 159.

The question, then, is before the profession—whether the apparent elongation of the limb is due to inordinate action of the glutæi and rotators—or to position (implying the associated action of more muscles than the preceding, but including their contraction,) and, subsequently, to actual distortion of the spine. Mr. Wickham's ingenious supposition is highly deserving of consideration.

In the second stage of disease of the hip-joint, there is shortening of the limb affected. Mr. Wickham remarks that this may be *apparent*, and without dislocation of the head of the femur from its socket: or *real*, and dependent upon such an alteration.

"I am the more anxious to dwell on this distinction, from the belief that the subject has not received the consideration of the profession, and from the circumstance that I have repeatedly seen cases pronounced to be in a state of incurable dislocation, which have proved otherwise; and that, too, by surgeons for whose talents and judgment I entertain the highest respect. According to my own experience, the actual dislocation of the thigh is of very rare occurrence. I do not think I have met with one case in twenty of the shortened leg in which I could pronounce the bone to have escaped from its socket." 162.

We believe it is admitted that shortening may exist independently of dislocation, from ulceration of the head, and partial or general destruction of the cervix of the femur. Such an admission is contained in the work of Mr. Brodie.

"In the very advanced stage of the disease (says he) when the head of the femur has been completely destroyed by ulceration, there is nothing to prevent the muscles from pulling the bone upwards. This may be compared to a case of fractured neck of the femur. The limb is not only apparently, but it is really shortened: the foot may be rotated inwards, but, if left to itself, it generally is turned outwards."—*P.* 161, *2d Ed.*

Mr. Wickham proceeds to the pathology of the stage of *apparent* shortening. We confess we have misgivings of the propriety of the designation. Take, for instance, the following cases, intended, we presume, to illustrate his observation.

Case. Mr. W. dissected the hip-joint of a man, who died under long-protracted disease of the articulation. The limb appeared much shortened, and drawn over its fellow. On exposure of the parts, a confused mass presented itself of jelly-like matter, mixed with dark pus, having small fragments of bone floating in it; no vestige of the natural textures of the joint remained; the head of the femur was almost destroyed by absorption, a portion only remaining about the size of a walnut; it was imbedded in the acetabulum, which was divided into three portions, and so thin as to break down under the finger; matter escaped into the pelvis, behind the peritoneum.

Surely there must have been real shortening here, the head of the femur being almost gone, and the cavity of the acetabulum deepened by ulceration.

Case. In the case of a female, in whom the limb was thrown over its fellow, and more drawn up towards the abdomen than Mr. W. had ever previously seen it, the soft parts of the joint were found entirely destroyed, and a dark offensive matter ranging in the cavity which was once the articulation; the round ligament and cartilage were gone from the head of the femur and acetabulum; the upper and outer edge of the socket was nearly absorbed, on a line with the surface of the dorsum ilii, and the head of the bone lay imbedded in the excavation.

In another case the affected limb was drawn upwards and forwards, so as to present the appearance of shortening to a considerable degree; the ball of the great toe reached about four inches above the ankle of the opposite leg, and the thigh crossed the other. On examination, the head of the bone is described as remaining within the acetabulum, and matter, which had formed in connexion with the hip-joint, communicated with the rectum. But no more particular account is offered.

It cannot escape observation, that Mr. Wickham has made a very serious omission in these cases. He has neglected to ascertain, at all events to mention, whether the shortening was ascertained to be real or deceptive by actual measurement in the living patient. In all such cases, it is the practice of the careful surgeon to learn, by the application of tape, whether there is actual shortening of the limb, or whether the apparent diminution of length is due to position, or to alteration of the pelvic plane. The omission to which we have alluded is equally conspicuous in some cases that Mr. Wickham next relates, in which the shortening disappeared under proper and efficient treatment. The following, as the strongest, is perhaps the best instance.

"————, in July, 1831, was admitted into the Hospital, weakened by the continuance of disease of the hip-joint. He was placed at once in bed, and not submitted to the usual forms of the house, so weak was his condititon. His limb was much distorted and bent on the body, and he lay on his right side, his disease being in the left hip. Actual disease had only existed a few months, but he was reduced to his debilitated state by an attack of scarlet fever. His pain at the joint and at a distance was very great.

A seton was applied in the groin, and another opposite the trochanter. These afforded considerable relief. He was kept in bed, and a liberal diet allowed him. Under treatment the diseased action entirely subsided after three months, and he quitted the hospital, with his foot reaching to the ground, the limb only weak.

This case was seen by an eminent surgeon of one of the large hospitals in London, and pronounced to be in a state of actual dislocation from disease. This opinion I combated at the time, with, I hope, that deference which was due to his great and distinguished talents, but at the same time with that confidence which my own peculiar views and extended observations inspired me with." 169.

Here we have no means of discovering whether the shortening was genuine or fictitious, whether the eminent surgeon of London was very negligent, or slightly culpable. At the same time, we give much credit to Mr. Wickham for prominently directing attention to the fact, that great alterations in the appearance of the limb, and position closely resembling that of dislocation, very frequently exist, independent of that change. There can be no question that routine surgeons, of whom there is no lack, even among those attached to hospitals, are frequently deceivers and deceived, from ignorance or inattention.

The only point to which it remains for us to allude, is the manner in which dislocation occurs. It is commonly attributed to the action of the glutæi, but such is not the opinion of our author. In his view of the alteration, the iliacus and psoas play the chief parts.

"When enumerating (says Mr. W.) the symptoms of the first stage of the diseased hip, I alluded to the flatness of the nates, produced by wasting of the glutei muscles, and spoke of it as a circumstance not only the precursor, but as the actual cause of the second stage. Whoever will take the trouble to examine into the action of the large muscles which move the femur, and observe by their insertions how the upper and lower ends of the bone must be differently affected, will be enabled to comprehend how, in the state of shortening by position, as in the state above described, the flexor muscles bring the shaft and lower part of the bone upwards and inwards across its fellow, whilst the head of the bone remains stationary in its socket, its principle pressure bearing against the outer and posterior edge of that cup, and it will be readily understood how the head of the bone will be retained in its socket until this edge be entirely absorbed, or the head of the femur itself be so destroyed as to be incapable of resistance, and thence liable to be forced backwards on the dorsum ilii. In the stage of shortening, the flexor muscles, the psoas and iliacus, are called into such action as to bring the thigh upwards and inwards in the position which has been noticed; they are called into exertion in consequence of the inaction from loss of power by wasting of their antagonists, the extensors (the glutei)." 172.

He remarks that dislocation of the head of the bone is rare, and can only happen when the ring of the acetabulum is broken down by absorption, or the head of the femur so lessened as to allow of a wider range to its movements in the socket, by which a slight degree of irregular action may displace it. He thinks that, even in the latter case, dislocation is unusual, for the wasted head is rather disposed to be drawn into the depth of the acetabulum.

"In all cases of actual dislocation which I have witnessed, I have found the edge of the acetabulum, at its upper and outer part, entirely absorbed, and the head of the femur more or less destroyed, and lying between the acetabulum and the ischiatic notch, but rather higher on the dorsum ilii than the level of that notch." 173.

It will be seen that the description of the symptoms, that is, of the appearances of dislocation, does not tally with what is usually offered and received. It is commonly believed that the physical features of the dislocation on the dorsum ilii, from disease, agree with those of the same dislocation from accidental violence. But Mr. Wickham says that they resemble those of fracture of the neck of the thigh bone.

"By the dislocation of the femur the length of the limb is actually shortened to the amount of nearly four inches; it loses its former position of flexion on the body; instead of being drawn forwards and inwards on the other thigh, it becomes straightened, and the knee which was turned inwards is now directed outwards, or, as is most commonly the case, moveable from the straight position to the eversion, but incapable of turning inwards. It assumes the same aspect as the fracture of the neck of the femur." 173.

It has certainly appeared to us that the ordinary notion is correct. But Mr. Wickham's statements will induce us, and probably others also, to look at the subject with more minute attention.

Here we close the volume and part from Mr. Wickham. We leave him

with feelings of esteem, and beg to compliment him on his industry, ingenuity, and zeal. If he perseveres, and we do not doubt that he will, the sphere inwhich he moves will acknowledge his merits and reward his exertions in a manner more significant and more substantial than mere eulogy.

A HISTORY OF EGYPTIAN MUMMIES, AND AN ACCOUNT OF THE WORSHIP AND EMBALMING OF THE SACRED ANIMALS BY THE EGYPTIANS, WITH REMARKS ON THE FUNERAL CEREMONIES OF DIFFERENT NATIONS. &c. &c. By *Thomas Joseph Pettigrew*, F.R.S., &c. &c. 4to. with Plates, 1834.

THE labours which have been expended on the dissection and decyphering of mummies require new terms to designate their nature. Mummiotomy may be allowed for the former—and mummiography for the latter. The various discourses and disquisitions respecting embalming, and funeral ceremonies, may come in under the head of mummiology. Mr. Pettigrew and Dr. Granville have taken great pains to make us acquainted with these sacred or superstitious operations for preserving the frail and otherwise perishable tenement of man, which occupied so much of the time and attention of the Egyptian priesthood and the aristocracy of the Nile. These investigations are certainly both curious and interesting, not only in relation to the history of the human species; but to the condition of the arts and sciences at those remote periods when embalming the dead was so much practised.

Although our more immediate concerns are with the living and the recently dead, yet we think a rapid sketch of the prominent features of the work before us will not prove unacceptable to our readers, especially when it is remembered that the (necessary) price of the volume must render it inaccessible to the great mass of medical practitioners.

We shall not dwell on the etymology of "mummy," whether the term be confined to the body preserved or to the preserving body—the inquiry ending, like too many of the same kind, in conclusions where nothing is concluded. Mr. Pettigrew employs the term as signifying the body embalmed.

In the 16th and 17th centuries mummy formed a drug of no very uncommon prescription. The mummy, including its bituminous wrapping, was considered as having the power of throwing off from the stomach collections of congealed blood. When this and many other valuable qualities of the mummy were verified—and what may not be verified as to drugs?—

"Some Jews entered upon a speculation to furnish the mummy thus brought into demand as an article of commerce, and undertook to embalm dead bodies and to sell them to the Christians. They took all the executed criminals, and bodies of all descriptions that could be obtained, filled the head and inside of the bodies with simple asphaltum, an article of very small price, made incisions into the muscular parts of the limbs, inserted into them also the asphaltum and then bound them up tightly. This being done, the bodies were exposed to the heat

of the sun; they dried quickly, and resembled in appearance the truly prepared mummies. These were sold to the Christians." 8.

The mummy seems to have been a favourite remedy among our Gallic brethren, and Francis the First was in the habit of always carrying some mummy-powder about with him, ready to take upon receiving any wound or injury! Armed with this universal panacea he considered himself secure against all danger! And no wonder, when Avicenna, one of the lions of antiquity avers that this said mummy is very useful in fractures, paralysis, hemicrania, epilepsy, hæmoptysis, palpitation of the heart, diseases of the liver and dozens of diseases for which even veratria has not been pronounced as a specific. The GREAT Lord Bacon informs us that "mummy hath great force in stanching blood:" while the GREATER Ambrose Paré assures us that it was a remedy of high reputation in his day. We have applied the term "GREATER" to Paré, because that shrewd surgeon condemned the remedy as perfectly useless. We must not laugh too heartily at the *mummeries* of the olden times, seeing that we have abundance of them in our own days. Have we not a Bacon in Harley Street, and an Avicenna in Hatton Garden, vouching for the efficacy of more pernicious drugs than a piece of powdered mummy?

From physic let us make a short digression to metaphysic.

"Believing in the immortallity of the soul, the ancient Egyptians conceived that they were retaining the soul within the body as long as the form of the body could be preserved entire, or were facilitating the reunion of it with the body, at the day of resurrection, by preserving the body from corruption." 13.

The creed of the Egyptians was this:—that when death occurs, the soul enters into some other animal just born; and after going the round of all animals on the earth, in the air, and in the waters under the earth, occupying a period of about 3000 years, *more or less*, the soul again enters the body of a man *just born*. Now upon this creed it is needless to say that the soul of the departed mummy could never again enter its prestine habitation, if that habitation were preserved three million of years instead of three thousand! The theology of mummies, we fear must come down to an humbler *rationale* than this absurd theory affords us—which is indeed in direct contradiction to the principles on which it is said to be founded. Even if the belief of a *resurrection* prevail among the Egyptians, which we very much doubt, the practice of embalming, *on that account*, must have been equally absurd. The power that called up the body to be re-inhabited by its former soul, would not need the power of pitch or asphaltum to work this miracle; and if it *did* need this mummery, what was to become of the myriads who could not afford the expense of embalming?

The whole affair, in our humble opinion, resolves itself into a simple principle, which is as operative at this moment as in the days of Sesostris—the wish and the endeavour to prolong the memory of our friends and of ourselves. This "longing after immortality" is deeply mixed up with our nature, and shows itself in life, in death—nay, after death. No one can pass through a country church-yard without remarking the "frail memorials" of extinguished existence, erected by friends or even by the departed themselves, to procrastinate that oblivion that rolls its tide over all things. It is true that, in ancient—perhaps in modern times, the pride of kings and the

cunning of priests have ingrafted on the above-mentioned natural and pious principle, a great many other principles and superstitions that have disgraced the intellect of man, and perhaps increased the sum of his physical miseries. Hence the stupendous pyramid rose, by the hard labour of millions, to inclose the bitumened corpse of some tyrant monarch! Hence the myriads of sacred animals, fostered during life, to impose on the credulity of the ignorant, and preserved, after death, to keep up the delusion, and enable the priests of Egypt to feed on the earnings of the poor. Although our modern priests are free from any blame, as to the disposal of the dead, we conceive that modern sepulture is not entirely free from the charge of superstition, folly, or pride. The *consecration* of the ground where our clay is to mingle with mother-earth may be an amiable, but it is certainly not a philosophical feeling. Can such a rite benefit the soul of the dead? We apprehend that none but a Catholic can think so—and not even he, if capable of reasoning rightly. But the practice of erecting magnificent mausoleums, such as Hadrian's and Metella's tombs, in former times, and costly sepulchres (which shall be nameless) of more modern date, cannot be contemplated without pity for the weakness of human nature. By these observations, however, we should be sorry to censure the laudable custom of erecting statues or other mementos to departed genius and merit. These encourage the virtues and excite emulation, without any reference to other states of existence. It is always dangerous to connect any rite or ceremony on the lifeless clay with the prospect or condition of the immortal soul. This, in fact, is embracing the worst parts of monkish superstition. These reflections have grown out of the disquisition contained in Mr. Pettigrew's work—a disquisition which is curious, and even amusing, considering the *grave* subject of it.

The fourth chapter, on "Egyptian tombs," contains a great deal of curious research. The fifth chapter is "on Embalming." It may be stated in a very few words, that this useless art is not practised by the modern Egyptians—and that the ancient art is unknown. Little that is precise or practical can be gathered from the accounts of embalming recorded by Herodotus or Diodorus Siculus—and we fear that even Dr. Granville and Mr. Pettigrew have given us conjectures rather than certainties, as to the medicaments by which these mummies were preserved. Our present author observes that—"one cannot but express regret that the present state of chemical knowledge is not sufficientiy advanced to be capable of detecting the precise nature of the substances, chiefly of a vegetable kind, that have been used in this ancient operation." We wish well to the advancement of chemistry; but we confess we shall not go into mourning if even a Faraday should fail to analyze the preservative materials of a mummy. Passing over a very amusing chapter on the amulets, idols, implements, &c. found in Egyptian mummies, and also the chapter on sarcophagi, together with one on the Papyri manuscripts, we come to an interesting chapter on the "physical history of the Egyptians." The varieties of form and of complexion in the human race have engaged the attention and puzzled the brains of philosophers, poets, and physicians in all ages, and the matter is still involved in almost cimmerian darkness. Neither race nor climate, singly, will account for the astonishing differences of complexion in man. We doubt whether the Ethiopian would ever change his hue, if he and his

descendants inhabited the North Pole for a hundred generations. The character of Egyptian physiognomy is distinctly preserved in the mummies. These resemble the Arabs rather than the Copts, Chinese, or Negroes. Mummies of the higher orders of society reveal the almost living lineaments of a people, tawny, not black, with long, and sometimes lank hair, with features which bear no trace of Negro descent. Neihbuhr, Browne, and others, consider the present Copts as the genuine descendants of the ancient Egyptians. Mr. Madden, however, is of a different opinion, and comes to his conclusions from a careful admeasurement of the heads of mummies and those of Copts. Mr. M.'s testimony rests on more accurate data than those of brother travellers or philosophers, and is therefore of more weight. One thing is clear—that the Egyptians, as far as we can judge by the mummies, were not descendants of the Negroes.

The twelfth chapter gives us an account of the sacred animals embalmed by the Egyptians. Here it is that priestcraft and superstition—two words which might be almost considered synonimous—beam forth in all their glory!

"Certain animals were supported at the public expense. The people offered up presents to the animal representing the divinity to whom they were addressing their prayers, to render their supplications fruitful. Animals of the lowest character, even vile insects, have been fostered in their temples, nourished by their priests, embalmed after death, entombed with pomp, and received all kinds of honours. Those who either by accident or design have occasioned the death of any of these animals have even paid the forfeit of their lives as the penalty of the offence. 'He who has voluntarily killed a consecrated animal,' says Diodorus Siculus, 'is punished with death; but, if any one has even involuntarily killed a cat, or an ibis, it is impossible for him to escape capital punishment; the mob drags him to it, treating him with every cruelty, and sometimes without waiting for judgment to be passed. This treatment inspires such terror that if any person happens to find one of these animals dead he goes to a distance from it, and by his cries and groans indicates that he has found the animal dead." 170.

The bull, the dog, the hawk, and the ibis, were great divinities in those days. But, in some cities, the sheep, the goat, the sparrow-hawk, the crocodile—almost every creature that flew, ran, creeped, or swam, came in for divine honours, and received the expensive process of embalming!

Truly if this veneration for animals and mania for embalming human bodies had continued, Egypt would, by this time, have become one general sepulchre for dried mummies of men and beasts! The following is the conclusion to which the learned Dr. Pritchard has come respecting the Egyptian worship of various animals.

"We have seen that all the operations of nature were ascribed by the Egyptians to certain demons or spiritual beings, who were supposed to animate different portions of the universe. All these were emanations from the universal deity or soul of the world. This doctrine was extended still further; and it was imagined that the soul or vital principle in every living being is an emanation from the same source, that it is a divided portion of the divine nature, and derived either primarily or secondarily from the fountain of divinity. Accordingly, in men and animals, and even in plants, they adored the indwelling portions of the same essence." 174.

But our readers will be ready to say—satis superque, in respect to Egyp-

tian mythology. The subjects are all illustrated by appropriate plates, and we think that Mr. Pettigrew has completely exhausted the inquiry as to mummies.

Our talented and indefatigable author, indeed, must have expended immense pains upon this dry, though curious subject of investigation—more, we freely confess, than we should have done. The work, however, will transmit his name to posterity, and will prove a valuable acquisition to the cabinets of the curious throughout the whole empire, and even far beyond the limits of the British Isles.

HIPPOPATHOLOGY; OR, SYSTEMATIC TREATISE ON THE DISORDERS AND LAMENESS OF THE HORSE, &c. &c. By *William Percivall*, M.R.C.S. Vol. I. pp. 331. Octavo. Longman's, 1834.

OF all domesticated animals, the HORSE has the most powerful claims on the sympathy and attention of the medical practitioner. The lawyer may construct his briefs—the parson may perform his clerical duties—and the merchant may grow rich in his counting-house, with little assistance from the horse; but to the medical man this spirited and intelligent animal is as essential as the knowledge which he acquires in the schools, or the medicines which he prescribes for his patients. The horse is his companion and best friend in the town and in the country. He carries him proudly through the crowded street—he conveys him safely over the midnight heath. He shares with his master in all the toils, and in many of the dangers of professional life. He is as much exposed to the elements—more indeed than the physician and surgeon—and he is not exempt from many of the diseases to which his superior is liable. To inflammation, fever, rheumatism, organic diseases of the heart, liver, and lungs, the horse is very prone; and the study of his maladies is as necessary to the medical practitioner, in a pecuniary point of view, as it is interesting in a pathological.

No one can question the competency of Mr. Percivall for the task which he has here imposed on himself, and we have no doubt that the work, when completed, will be very popular in the medical profession. It is to consist of three volumes, of which the one before us is the first. It treats especially of the external disorders of the body, including, however, several that, in human pathology, we should denominate internal, as fever, influenza, strangles, rabies, dropsy, &c.

An examination into the health of animals, and especially of the horse, is really instructive, even to the purely medical practitioner, as will probably appear, in the course of this brief review. The natural state of animals can hardly be said to be subject to disease; yet in each year many animals, and particularly the horse, are obliged to undergo certain revolutions in the system, which disturbs the health more or less. The satin coat of the Summer falls in the Autumn, preparatory to the growth of a pilous covering for the Winter. In Spring, a counter-revolution takes place, and

these operations are accompanied by a certain degree of debility, predisposing to disease. Some revolution also takes place, at Spring and Fall, in the human constitution, for it is at these periods, that we observe the aged and ailing more frequently nipped off than during the intervening epochs.

But it is to domestication that the horse owes almost all his evils, as it is to refinement and civilization that man owes nine-tenths of his bodily sufferings, and the doctor nine-tenths of his fees. When the horse, for instance, comes to be housed and treated with care and kindness by man, then begin his susceptibilities to those very diseases which affect his lord and master! Even the sturdy ass and stubborn mule, when domesticated, bear diseases ill, as our author had opportunities of witnessing during the Peninsular war.

In the transition from a state of Nature to a state of domestication, the horse receives most of his morbific impressions from air, exercise, grooming, and shoeing. On each of these subjects, our author makes some excellent remarks, all bearing more or less on human pathology. Thus the horse is greatly injured by the heated and impure air of the stable, in the same way as man and woman, too, are deteriorated in health, by the crowded assembly-room—the stifling theatre—and the murkey back-rooms of shops and dwelling-houses. The ventilation, draining, and cleanliness enjoined in the cavalry stables, where great numbers of horses live together, prevent sickness in a most astonishing manner. The hay and corn, though in a very different condition from the same materials in a succulent condition, do little or no injury to the horse, when the *quantity* is proper, and the circumstances under which the food is taken are favourable. The following remark is interesting.

"The only drink the horse will take, either in or out of the stable, is *water*. All that we have to guard against is, its being given at improper times, and in improper quantities. In a general way, drink is given too sparingly: after work is done, and while the body is cool, there can be no good reason for stinting the animal of this wholesome beverage. In a state of nature he helps himself to water; and from that circumstance, as well as the one of his food being green and succulent, drinks much less than when in the stable. I once made an experiment with two horses who had (leaden) mangers for containing their water, by the side of those that held their corn; and I found that when these mangers were filled, and the animals were allowed to drink *ad libitum*, they invariably consumed less fluid than when watered in the ordinary way." 5.

The theories that have been broached respecting man's drink are mostly erroneous. When thirst occurs, there can be no impropriety in slaking it—even in the midst of our meals——Abernethy to the contrary notwithstanding.

In respect to exercise, our author observes that it is difficult to say which is the more injurious of the two extremes—absolute rest, or inordinate labour. It is just the same in man. The unexercised female, in high life, is subject to as many diseases as the poor girl in the manufactory, working 14 or 15 hours in the day!

As to shoes, though we believe that man was destined to go bare-footed—or at the most with sandals; yet we allow that, with all the misery of dancing-pumps and dandy boots, the poor horse is worse off than his master.

The interference of the farrier is the greatest evil which the horse has to dread! Yet it is a necessary evil, after he has left his pasture-grounds, and taken up his abode in town or city, even with all the advantages of macadamized steets.

On the transition from health to disease in the horse, our author makes many judicious observations. Among the causes of this transition in the horse as in man, PLETHORA is conspicuous. More food is taken by both these animals than is necessary for the nutrition of the body, or proportionate to the exercise thereof. Defective or inadequate secretion and excretion result from this plethora, and tend, in return, to augment it. The congestion consequent on plethora, in the horse, most frequently shows itself in the lungs—probably from the circumstance of horses being put to quick motion directly after long quietude and good feeding in the stable. They often suffer, like man, in the brain, from this plethoric congestion, hence, "it happens every now and then that a horse dies suddenly, in a fit of vertigo or staggers, without having manifested any signs whatever of previous indisposition."

"The *blood* in sheep, a disorder to which the French give the name of *maladie de sang*, is the effect of plethora and cerebral congestion, induced by luxuriant pasture and other causes similar to the above. All on a sudden, the sheep—up to that moment in apparent health—stands aghast—in the midst of the others, staggers and falls prostrate: his breathing becomes laborious; he foams at the mouth, and gasps with it wide open; he rattles in his throat; blood issues from his nose, and even from his anus: he becomes convulsed and dies." 17.

These facts may serve as a lesson to man!

The heart, as might be expected from the spirited exertions of the horse, is often affected by dilatation or hypertrophy—and auscultation is here an important knowledge, and one which may be of some pecuniary value to those who purchase horses. We had an opportunity once of examining a horse that appeared in excellent condition; but on applying the ear to the animal's side, we discovered evident symptoms of disease of the heart. We afterwards learnt that this horse was easily put out of breath on any consid erable exertion.

The liver of the horse is very subject to congestion.

"In old horses that are very fat, and whose work is but occasional or trifling it is not a very uncommon accident to have the gland burst from congestion; in which case it displays a mass of seemingly nothing else but congealed black blood." 18.

The mucous membrane of the trachea and bronchi is peculiarly susceptible of inflammation—hence bronchitis is one of the common diseases of the horse. But of this more hereafter. Passing over some curious and interesting observations, we find, under the head of "signs of disease" in the horse, some remarkable analogies with those signs which denote a deviation from health in the human subject. The horse is "off his feed,"—an expression which many a biped patient has complained to us of, in the course of our practice! His spirits fail—he "hangs heavy on hand, at his work or exercise,"—and the number of the pulse is augmented. The surface of the body loses its natural smoothness, gloss and general warmth—the coat stares, and the ears and extremities are chilled. Much may be gathered

from the state of the respiration. The "heaving or panting of the flanks," corresponds with that abdominal or diaphragmatic respiration in man, which augurs something wrong about the chest, preventing free thoracic expansion.

Were we to indulge our own inclinations, we would run our parallel between disease in this useful quadruped, and those of god-like man, to a great length; but we dare not, lest we should be accused of derogating from the dignity of the Lords of the Creation. We shall, therefore, only allude to one more subject, and close our notice of this volume.

FEVER.

It appears that in veterinary medicine there have been Broussaians as well as among ourselves.

"The old works on farriery present us with copious accounts of fevers; the veterinary school in this country set out with denying their existence. I commenced practice myself with a belief that there was no such disease in horses as abstract fever; but I soon found myself compelled to alter my opinion: at least I met with diseases which I was unable to refer to any other source or heading. And I believe I may add, that at the present day, the revival of this doctrine is pretty general amongst veterinarians." 142.

After alluding to the definition and short description of fever given by Cullen and Fordyce, the latter of whom considers continued fever as a succession of ague fits, with slight remissions instead of intermissions. Professor Coleman remarks, "that the horse is not subject to fever." The present author thinks that the animal in question certainly is not subject to *this* kind of fever—but, at the same time avers that the horse is liable to general fever, without reference to any appreciable local affection.

"That heat of body and accelerated pulse, together with the usual functional disorder attendant thereon, are to be found as well, and (making allowances for the number of their diseases) as often in horses as in men, no one will attempt to dispute: it only remains, therefore, to inquire, if these febrile symptoms in all cases admit of being referred to local or organic disease. Will any body take on himself to say, that he never met with these symptoms but in connexion with manifest disorder of some one or other organ or part of the body in particular? I think not. On the contrary, every one must confess, that, if such constitute fever, there can be no doubt of its existence in horses; and that, so far from its being a rare or disputable case, it is one of constant daily occurrence." 144.

Fever in horses, as in man, is generally ushered in by coldness of more or less intensity—sometimes even by a rigor, succeeded by heat and reaction, with the principal phenomena observed in the human race. The causes are generally alternations of temperature—over-exertion—and too high feeding. Idiopathic fever in the horse is seldom dangerous where no other disease coexists. It is cured by depletion.

But we must close our notice of this work, by strongly recommending it to our brethren, few of whom can afford to live *without a horse.* Nothing can put in a clearer point of view the march of intellect than the contrast between the old books on farriery and modern works on veterinary medicine. The farrago of receipts and nostrums is now changed into accurate and scientific anatomy and physiology; while the therapeutics of the stable

are reduced to even greater simplicity than in the wards of an hospital. To such perfection, indeed, has veterinary medicine arrived, that we had rather trust our body in the hands of a modern horse-doctor than in those of an ancient physician. An Hippocrates and a Sydenham were excellent observers of diseases, for they watched them throughout all their phases of increment and decline, with little interference on their parts. A Coleman and a Percivall can also observe accurately the trains of morbid phenomena in horses, aided by the lights of human and comparative anatomy and physiology, while they can apply the most energetic and successful remedies.

THE PHYSIOLOGY, PATHOLOGY, AND TREATMENT OF ASPHYXIA. By *James Phillips Kay*, M.D. Octavo, pp. 344. 1834.

THE subject of asphyxia is not quite so hackneyed, in this busy age of authorship, as most other themes of medical literature. It may, therefore, be agreeable, as well as profitable, to our readers, to review some of the leading topics connected with it, as they involve many curious speculations of physiological science, and the deductions which have been drawn from these ought to be well understood by every practitioner. True, indeed, many of us may pass through a long and actively engaged life, without being once called upon to employ the means of resuscitating persons who have been asphyxiated, whether from drowning, hanging, or respiring noxious airs; but such cases may occur, and then, should we be found wanting in proper knowledge and in ready assistance, our characters may be ruined and our inward peace destroyed. Moreover, the same principles which ought to guide us in the treatment of asphyxiated adults, form the basis of all judicious attempts to resucitate the lives of still-born infants.

Without further preface, we proceed to examine, very briefly, the most approved theories on the subject. It is unnecessary to allude to the speculations which were entertained by physiologists previous to the time of Bichat, that boast and pride of the French school. It was he who exposed the incorrectness of the opinions held by Harvey, Haller, &c. that death from asphyxia was owing to the mechanical obstruction to the flow of blood through the lungs, in consequence of the subsidence and falling together of these organs; and of the hypothesis of Goodwyn, who supposed that the venous blood, when admitted into the left cavities of the heart, acted on their internal surfaces as a sedative poison, and thus caused a paralysis of their motions.

His celebrated experiment of tying the trachea of an animal, and then dividing one of its arterial trunks, satisfactorily demonstrated, that the dark, unaërated fluid continued to permeate freely the heart and general circulatory system—that it was projected per saltum from the opened vessel, and that these phenomena lasted from three to four minutes.

No one has gainsayed the accuracy of Bichat's statements, and we are, therefore, bound to accede to his conclusions. By a series of well contrived and most ingenious experiments, he was led to propose a theory of asphyxia,

which has been almost universally admitted as the true one by physiologists to the present day. Having ascertained that the circulation is carried on for a limited time (from three to five minutes) after the respiratory functions have been arrested, he rightly inferred that every organ and every tissue must necessarily be permeated by the dark venous blood; and this, he afterwards found, was incapable of supporting the functions and vitality of these organs and tissues. The most important and the most essential to a continuance of life are the brain and heart; if, therefore, said he, the functions of these can be shewn to be arrested by the transmission of venous blood through their structures, we can have no difficulty in explaining the phenomena of asphyxia. The following experiments were performed:—

"I opened, in an animal, the carotid and jugular; I received into a syringe, heated to the temperature of the body, the fluid that the latter poured forth, and I injected it into the brain by the former, which I had tied on the side nearest to the heart, to avoid hæmorrhage. Almost immediately, the animal became agitated; his respiration hurried, he appeared to suffer from dyspnœa similar to that which occurs in Asphyxia; he soon exhibited all its symptoms; animal life was entirely suspended, the *heart still continued to beat, and the circulation to proceed during half an hour*, at the termination of which, death extinguished also the organic life. The dog was of a middle size, and about six ounces of dark blood were gently injected, lest the effect which resulted from the nature of the fluid should be attributed to a mechanical shock." 190.

And again:—

Divide in a dog the trachea, and close it so that no air can enter; at the expiration of two minutes dark blood flows into the system of red blood. If you then open the carotid, and receive into a syringe the blood which issues from the opening, in order to propel it into the brain of another animal, this last soon falls with an embarrassed respiration, sometimes with plaintive cries, and soon dies." 192.

Thus much for the operation of the venous blood on the functions of the nervous system: and so deleterious has this been considered by many physiologists, that they have ascribed the death in asphyxia more directly and immediately to this cause, than even to the paralysis of the heart's actions; the doctrine which was entertained by Bichat. Beclard, in his Elements of General Anatomy, says—

"Asphyxia, whose cause has been so much sought in the obstruction of the transit of the blood through the lungs—(Haller) in the stagnation of the venous blood in the left ventricle—(Goodwyn) in the penetration of the muscular structures of the heart by this blood—(Bichat) results much rather from the transfusion of the nervous structure by dark blood." 183.

And Dr. Alison, in his Outlines of Physiology, records similar sentiments:—He says:—

"The experiments of Bichat, Brodie, and others have satisfactorily shewn, that a quantity of blood sent from the right side of the heart to the lungs, although not arterialized there, passes on to the left side of the heart, and is propelled into the arteries; and that as soon as this venous blood reaches the brain, the animal becomes insensible, and generally convulsed. It appears from these facts, that in death by Asphyxia, the deleterious influence of venous blood is exerted first on the nervous system; next, and most fatally, on the circulation in the capillaries of the lungs, and in a less degree only, on the heart and other muscular parts. 183.

It is by no means so easy to prove satisfactorily by experiments that the venous blood, when admitted into the coronary arteries of the heart, acts so directly, like a poisonous sedative on the contractile functions of the heart, as we have seen that it does on the nervous system. We are obliged to have recourse to analogy; and the analogy has been drawn from observing the effects of the injection of the dark fluid into the arteries of a limb. Bichat assures us, that this operation very generally induces paralysis of the muscles of that limb; and he has therefore inferred that the transmission of dark blood through the coronary arteries of the heart must have a similar sedative effect on the functions of this vital organ :—his words are—

"I am well persuaded that if it were possible to propel by the coronary artery, dark blood, whilst the florid circulates as usual in the aortic auricle and ventricle, the circulation would be almost as soon interrupted as when the blood penetrates the tissue of the heart by the coronary arteries, only after having passed the two cavities of arterial blood." 169.

The leading aim and object of Dr. Kay's work is to prove that many of Bichat's data are not strictly correct, and that his conclusions are inaccurate and fallacious. It would have enhanced the merit of his labours, and rendered his work much more valuable, had a condensed and perspicuous arrangement of his arguments and opinions been diligently pursued. Dr. K. has probably little idea of the irksomeness of the labour which a reviewer, (and in truth every reader ought to be more or less of one in his studies,) has to undergo, in gathering together the important parts of such an essay as his, for the purpose of conveying within a short space the pith and marrow of its contents; else assuredly he would have submitted them over and over again to a mental distillation, till the pure undiluted spirit remained. It is a most crying fault, which almost all authors of the present day are guilty of, that of "hypertrophying" their work. The thoughtful remark of old Selden ought to be ever before them—"Had I had more time, I should have written less."

The objections which Dr. Kay, with very considerable ingenuity, had adduced against the doctrines of the great French physiologist may be aptly divided into those which have reference to the brain and nervous system, and into those which apply to the heart and general muscular system;—and first, respecting the disturbance of the cerebral functions, caused, or supposed to be caused, by the transmission of dark blood through the vessels of the brain, we may adduce the following experiments.

Exp. 1. The carotid artery of a rabbit was divided, and a drachm and a half of blood permitted to escape; blood taken directly from the exposed vena cava of another living rabbit was then gently injected towards the brain. This was repeated several times, until about three drachms and a half had been thus introduced. "The animal exhibited no signs of uneasiness whatever, but appeared perfectly well." This might proceed from great care being taken to avoid any great plethora, and to prevent the admission of air along with the blood.

Exp. 2. The carotid artery of a rabbit divided, and a drachm and a half of the blood permitted to escape, as in the former experiment. The blood from the vena cava of another rabbit injected. When more than three drachms had been introduced, the animal exhibited no signs of suffering: it remained languid and weak for some hours afterwards, and then recovered.

The other experiments, performed with a similar view, and exactly in the same manner, are admitted by our author himself to be unsatisfactory; (if so, what was the use of recording them?)

And now let us see what are the conclusions which Dr. Kay draws from his enquiries upon this part of the subject.

"They prove (says he) that though venous is a much less nutritious and stimulating fluid than arterial blood, it may circulate through the cerebral mass without producing by its *contact* with the brain, a sudden suspension of the functions of the nervous system.

I conceive that it must be regarded, as a fluid capable of only slightly nourishing and stimulating the nervous system. Its presence in the vessels of the brain, even for a short time, occasions languor and feebleness, and if its circulation were prolonged, we may imagine that sensation and voluntary motion would become still further impaired; but it does not destroy life by contact with the brain, and in Asphyxia, small quantities of it are transmitted, and for a short period only, to the cerebral structure." 198.

The ready remark which every reader will make is, that all such experiments as we have recorded above are quite unsatisfactory; and why? because the arterial circulation continued free and unobstructed through the other carotid of the animal. We cannot therefore, in canvassing the opinions of Bichat on this part of the subject, permit ourselves to be in any degree influenced by the results of Dr. Kay's experiments; and if we proceed further in this enquiry, and examine the objections which the latter has proposed to the reasoning of the former, we shall find that the dispute is rather about the meaning of a word than upon matters of fact, or the accuracy of the conclusions to be deduced from them. For this purpose, we shall relate an experiment recorded by Bichat, and append Dr. Kay's comments on it.

"Whilst Asphyxia is in its first stage in an animal, I have observed that by transfusing towards the brain red blood, by means of a tube adapted to the carotid of another animal and to its own, motion gradually revives, the cerebral functions are in some degree re-excited, and even often sudden agitations of the head, the eyes, &c., announce the first contact of the blood; but these good symptoms *soon disappear, and the animal relapses, if the cause of the Asphyxia continue, if, for example, the stop-cock fixed in the trachea remained closed.*" 202.

Dr. K. observes—

"The supply of blood from the heart to the brain being, as we have shewn, speedily interrupted in Asphyxia, nothing can so immediately revive the sensorial functions of the animal, as the transfusion of arterial blood from the carotid artery of another animal towards the cerebral mass. But if dark blood *extinguished* the functions of the brain by its poisonous qualities, we cannot conceive that its expulsion from the tissue could be so rapidly completed as to permit the sudden reanimation which occurs in the experiment.

If however we conceive dark blood to be only a fluid *exceedingly less capable of nourishing and stimulating the nervous system* than arterial blood, we may discover how, when it has circulated through the brain, the propulsion of a more nutritious and stimulating fluid into the tissue, may revive the phenomena of life." 202.

From this it appears that the sum and substance of Dr. Kay's objections is, that "the dark blood does not *extinguish* the functions of the brain by its *poisonous* qualities," but "is only less capable of stimulating the nervous

system." Bichat considered it as a direct sedative; Dr. K. views it as a minor stimulant.

It seems to us quite unnecessary to have devoted so much space and time to the settling of so small a dispute; although we admit that Dr. K. is more correct in his phraseology. His sentiments are well expressed in the following extract:—

"When respiration is suddenly arrested, the first symptoms of disturbance of the cerebral faculties ensue as soon as the quantity of fluid circulating is decidedly diminished, and motion and sensation are at an end before the circulation ceases. These effects we conceive to be owing to two circumstances, first, the *quantity* of blood circulating in the arteries is exceedingly *diminished*, and secondly, that fluid has lost, in a great degree, its arterial character, and has therefore become *less capable of maintaining the perfect phenomena of life, and especially the organic motions of the nervous system.*" 203.

And in support of that part of his doctrine which is expressed by the words "the quantity of blood circulating in the arteries is exceedingly diminished," he alludes to the symptoms observed in excessive hæmorrhage, in which, as in asphyxia, the supply of blood to the brain is gradually diminished;—these are, to use the words of Dr. Blundell, "dyspnœa, struggling, cessation of the circulation, relaxation of the abdominal muscles, and a complete asphyxia." The series of masterly experiments performed by Edwards (a very extended review of whose admirable work appeared in a late No. of our Review) demonstrates most unequivocally that venous or asphyxiated blood, "though incapable of supporting the life of reptiles and of young mammiferous animals, for an indefinite period, exerts no directly or immediately poisonous influence on the nervous system, so as to destroy its powers by mere contact, like a foreign fluid." Had we no other argument, we are of opinion that the one afforded by these experiments is quite conclusive against Bichat's theory in its full extent; and must force us to agree with Dr. Kay, that—

"In asphyxia, the imperfectly arterialized blood which circulates through the brain, is less conducive to the maintenance of its functions than arterial blood: but those functions and life are abolished, because the circulation is arrested in the lungs when the respiratory phenomena cease. The fluid which is then propelled into the nervous tissue, though less capable of developing its powers than arterial blood, can maintain for a time imperfect motions of the vital parts, and contribute to the evolution of an inferior order of vital phenomena." 207.

We now proceed to the investigation of the effects produced by venous or asphyxiated blood, on the functions of the muscular system generally, and of the heart in particular. This enquiry is one of great interest; and its accurate determination must be accomplished before we can admit the truth of the theory of asphyxia, which ever since the time of its proposer, has been almost universally assented to. We have already seen that Bichat has asserted "that venous blood injected into the main artery of a limb caused its muscles to become very sensibly feebler, and sometimes even immediately paralytic." He states, also, that the ligature of the artery, especially if that be the aorta, paralyses the limbs; but he does not attempt to shew, that the paralysis occurs earlier when dark blood is injected than when the main artery is simply tied. The loss of mobility may therefore possibly be owing rather to the interrrupted transmission of the arterial blood, than to

any sedative operation of the venous. Dr. Kay performed numerous experiments to ascertain this point.

For example, he tied the aorta and one of the common iliacs of a rabbit, and injected blood from the vena cava of another rabbit into the other iliac; the injection was thrice repeated in the course of 30 minutes. No difference could be discovered in the contractility of the muscles in the two extremities: the contractility was ascertained by inserting needles attached to the wires of the galvanic battery.

So much for the effect of the venous blood of another animal. Dr. Kay then experimented with the blood of an animal which had been asphyxiated by tying its trachea, and he obtained the same results as in the former experiment: viz. that the muscles of that limb which was so treated, retained their contractility, as long as those of the other in which the circulation was arrested. He varied the experiment thus:—the trachea of one rabbit was tied; and in another, the chest was opened and the heart tied at its base. The muscles continued contractile an equal time in both.

These experiments are therefore quite at variance with the statements made by Bichat; and additional proofs of their incorrectness may be derived from the following circumstance related by our author:—

"It is remarkable," says he, "that though the presence of venous blood in the tissue of muscle has been considered by Bichat and others to be fatal to its contractility, when the vein only is tied, or the artery and vein together, preventing the egress of this blood, the phenomenon does not so soon cease as in the simple ligature of the artery." 141.

From these data, Dr. Kay draws the conclusions, that the supply of dark blood from the left heart in asphyxia has no positive and direct noxious influence on the muscles; that they are affected in exactly the same degree as when the supply of blood to their tissue is interrupted; [if there be any difference in the two cases the contractility remains for a longer time in the former than in the latter case] and that therefore the analogy which Bichat has drawn from the influence of venous blood upon the voluntary muscles is without foundation, and cannot be applied to explain the cessation of the heart's movements.

The next step in the investigation is to endeavour to ascertain the effects of venous and of asphyxiated blood on the heart itself. This organ, it is admitted by all, retains its contractility for some time after that of the muscles has ceased. The right auricle and ventricle in common death always continue to contract longer than their corresponding systemic cavities, and the venous sinus and auricle longer than the ventricle; the right auricle is therefore the "ultimum moriens." The philosopher is naturally anxious to find out the cause of these differences; why the one side of the heart should retain its contractility longer than the other, and why the right auricle should survive the left one. As far as we can determine by anatomical examination their texture is the same; their bloodvessels and nerves come from the same source, and the only difference which we can perceive between them after death is, that the right is almost always distended with blood, and the other is empty, or nearly so. Haller supposed that as the blood is the natural stimulus of the heart, the cavities which become empty first, must first lose their power of movement; and he has related the following experiment in confirmation of his ideas.

"I divided the venæ cavæ, and emptied the right auricle and ventricle, afterwards tying the veins. I opened also the pulmonary artery by an ample wound, that the right ventricle might more easily discharge its blood, so that the right auricle and ventricle evacuated their contents; on the other hand I left the pulmonary veins free, but placed a ligature on the aorta, so that the left auricle and ventricle received blood, but could not expel it. The left auricle and ventricle always continued acting longer than their corresponding cavities, even to the forth hour. The right auricle was in perpetual quiescence. The right ventricle contracted either imperfectly, languidly, or a shorter time, when it was not altogether immotile; or its quiescence was perfect, as often as the experiment had so succeeded, that the cavities were entirely evacuated." 157.

It will be perceived that Goodwyn's theory of asphyxia accords well, and receives much support from the experiment of Haller; and it was doubtless the consideration of such facts that gave origin to it; and very naturally and perhaps correctly so. Indeed it has long been our decided conviction, that on this, as upon a number of other physiological enquiries, much error has frequently been committed by an over-fond and inconsiderate zeal of discovering a single, and as it were, an unassisted cause of the phenomena of living matter. Surely we should be led, a priori, to take a very different view;—an animal and a plant have more that one organ and one system in their wonderful economies, and we know that all the complex machinery of their functions is intimately and indissolubly woven together to form one admirable whole. Is it therefore at all improbable that the different parts of the sanguiferous system are differently affected by the two kinds of blood circulating through the body? that the one from being as it were accustomed, is impressionable only by the stimulus of the venous, and the other by that of the arterial blood; and therefore that the left side of the heart very possibly may be incommoded by the presence of dark blood within its cavities even although the coronary arteries still transmitted scarlet blood to its tissue, and the nervous system retained at the same time all its normal energies. This indeed is mere conjecture, and can never be proved by direct observation or experiment; but the same objection may be made to Bichat's theory, and also to the one, which we shall immediately find is proposed by Dr. Kay; and it is here especially worthy of notice that Dr. Kay's own theory is built on the very same fundamental principles as Goodwyn's, viz. the incapacity of certain parts of the circulatory apparatus being stimulated by dark-coloured blood. We shall only mention at present one sentence.

"In asphyxia, the blood, from the want of a supply of air to the lungs, rapidly loses its arterial character, until at length it becomes so much deteriorated, that it is incapable of exciting the organic sensibilities of the pulmonary vessels, which therefore refuse to transmit it through the tissue." 236.

Like all his predecessors our author displays the utmost ingenuity in trying to make every fact and phenomenon subservient to and accordant with his own doctrines; and he seems to forget that they may often be quite as consistently explained on the theory of others. For example, the manner in which he accounts for the transference of a more abiding contractility, from the right to the left cavities of the heart, is by supposing that the exit of the blood contained in the coronary veins is prevented when the cavities are full, and occurs only when they are empty; that therefore the veins of

one side remained gorged, and of the other side are drained; and that this very engorgement or congestion is in some degree favourable to the persistence of the contractility of the muscular fibres. In ordinary cases the right cavities are full and the left are empty; hence, according to Dr. Kay, the coronary veins of the former retain their blood; and those of the latter are deprived of it. When however an experiment like that of Haller's is performed, circumstances are reversed, and the left side cavities remain longer contractile than the right. The cessation of the heart's contractions, according to him, seems, therefore, to be owing quite as much to the want of a proper supply of blood to its texture, as to any noxious influence of the venous or asphyxiated fluid.

Our author proceeds to illustrate the subject, by a very extended reference to the experiments of Edwards, which we have previously alluded to. The results of these are too important to be passed over; and, as they tend to throw considerable light on the hitherto obscure theme of asphyxia, we shall briefly detail a few of the most important.

1. Reptiles, in which the circulation has been destroyed by excision of the heart, continue to live much longer when exposed to the air than when placed in water. A frog, whose heart was cut out, was immersed in water; when life seemed to be extinct, it was taken out and exposed to the air—it revived, and lived for some time. We are hence led to infer the pernicious effects of plunging asphyxiated animals in warm baths, for the purpose of recovering them; the contact of the vivifying air to the skin being thus effectually prevented.

2. Frogs, which were asphyxiated by pieces of bladder tied tightly over their heads, lived in air from one to five days, whereas in water, they died in the course of ten or twelve hours. This experiment is confirmatory of the conclusion drawn from the preceding one, and very satisfactorily illustrates the enlivening influence of the air on the blood, through the medium of the skin.

3. The young of many mammiferous animals can bear, without loss of life, the deprivation of air for a considerably longer period than the adults. Buffon was the first to announce this curious difference; and almost every person knows his ingenious experiment of making a bitch litter in water: the pups, on being born, were immediately transferred from the water to a tub of warm milk, and left there for half an hour; then permitted to breathe for half an hour, and again immersed for the same period; and yet they lived, and were as healthy as other puppies produced by the same bitch, after she had been removed from the water. Le Gallois obtained similar results with rabbits, and he ascertained that the power of enduring the want of air rapidly diminishes after birth: new-born rabits lived for 28 minutes—when five days old, for 16 minutes, and when fifteen days old, they did not live longer than the adult animals.

4. The duration of life in young animals, when deprived of air, is much influenced by the temperature of the surrounding medium. Young kittens, plunged into water at 32° F. died in four minutes and a half—at 57° F. in ten minutes and a half—at 68° F. in thirty-eight minutes—at 86° F. in twenty-nine minutes—at 104° F. in ten minutes and a half.

Hence it appears, that the two extremes of temperature are equally unfa-

vourable, and we thus perceive the danger of rashly applying a high heat to restore asphyxiated persons.

The consideration of the preceding statements leads us to this important conclusion, that in the inferior classes, and in the young of warm-blooded animals, the circulation of venous blood is not positively and directly noxious, as Bichat imagined, but is capable of supporting life for a considerable period after respiration has been suspended. It may be said, and said justly, by the disciples of Bichat, that the argument which we have just adduced rests upon an unsatisfactory analogy—that the constitution of the young animal may differ very materially, in many of its capabilities, from those of the adult, and that reasoning drawn from the one is not strictly applicable to the other. We admit, to a certain extent, the justness of these objections; still it cannot be denied that the analogies, such as they are, disfavour Bichat's theory. A phenomenon observed by Dr. Kay, in several of his experiments, may also be adduced here. He found that the heart continued to act vigorously in an asphyxiated animal for a minute or two after the blood had ceased to flow from the divided aorta. We cannot well reconcile this occurrence with Bichat's doctrine; and we may, therefore, accord to our author the merit of having proved that, "though the venous blood is less capable of maintaining the vitality of the body than the arterial blood, it exerts no positively noxious, and, as it were, poisonous, influence on its functions."

Our readers may now ask, what theory has Dr. Kay substituted in the stead of Bichat's. We shall give it in his own words:—

"As this change (the gradual conversion of the bright vermilion blood into the dark-coloured venous, when respiration is obstructed) proceeds, the circulation becomes more feeble and slower at each successive step of the change, until when venous blood enters those vessels which formerly conveyed arterial blood only, this degenerated fluid is no longer able to excite their action, and the circulation stagnates in the structure of the lungs. The pulmonary veins then discharge their last meagre supply through the left auricle into the left ventricle, which propels its last and feeblest tide into the arteries, in which the circulation has, every moment, become more scanty, until the pulsation has gradually been extinguished." 21.

Again:—

"The obstacle to the circulation does not therefore exist in the heart, but in the lungs." 22.

And, lastly, as—

"The general conclusions concerning Asphyxia obtained from this investigation are, first, that the circulation is arrested after respiration ceases, because, from the exclusion of oxygen, and the consequent non-arterialization of the blood, the minute pulmonary vessels which usually convey arterial, are then incapable of conveying venous blood, which therefore stagnates in the lungs. Secondly, that the arrest of the circulation is sudden when the lungs are entirely deprived of air, and that blood ceases to flow from them into the left cavities of the heart, even in the smallest quantities, in about three minutes and a half. Thirdly, that even supposing a great quantity of venous blood were transmitted through the lungs, and permeated the heart and muscles, it would not impair their contractility: but on the contrary, that it is even capable of supporting this power for a certain period. Venous blood does not possess any noxious quality, by which the organic functions of these tissues can be destroyed, but is simply a less nutritious and stimulating fluid than arterial blood. The functions of mus-

cular fibre cease in Asphyxia, because the circulation, and consequently that supply of vital fluid which is necessary to life, is arrested in the lungs." 182.

Dr. Kay has been more fortunate in exposing the insufficiency of the doctrines of others than in establishing the truth of his own; and so we predict it will always be, when physiologists endeavour to find out one, and *only* one, cause for any of the phenomena of living matter. There is not a single argument adduced to prove, that "the innervation or organic sensibilities of the minute pulmonary vessels" are sooner affected by, or are more hostilely opposed to the transmission of the dark-coloured blood than those of the capillaries in every other part of the system:—They are all, we have reason to believe, equally so, both in point of time and of degree; and we should say that, in death from asphyxia, the mortal changes are not nearly so consecutive to each other as physiologists have taught us, but rather that they are simultaneous and co-operating; and that, with but a very short interval, the brain and nervous system are paralyzed, the heart and its thousand pipes are robbed of their moving powers, and the commencement of death has taken place in every part.

We now dismiss the subject of the physiology of asphyxia; and, before adverting to the means of resuscitation, we shall briefly allude to a topic of much interest—one, the consideration of which is very intimately blended with that of asphyxia—we allude to the phenomena of syncope. It is no very easy task to point out accurately all the differences between these two states of suspended animation. This fact we know, that the one is much more speedily fatal than the other; and hence we have, *à priôri*, strong reason to infer that their pathological conditions are different.

It may be stated as a general law, subject to very few exceptions, that the interruption of the respiratory function proves fatal to adult mammiferous animals in from three to five minutes. Such we observe to be about the limits, in animals which are subjected to experiment, and such, we have reason to believe, has been the result of enquiries on the subject of accidental drowning. The period for which life may continue, during a state of syncope, cannot be well discovered; but we may certainly say, at the least, for several hours. This very striking contrast is not controverted or nullified by the histories of those remarkable cases, in which persons, we are told, have been recovered after they had been under water for upwards of one, and even of many hours. True it is, that not a few of these histories must be regarded as fabulous, and are found in those collections of marvels and wonders which were in vogue some 80 or 90 years ago. But, admitting the authenticity and correctness of some of these cases (and the characters of the vouchers are too respectable to allow our doubts to the contrary,) it has been most reasonably supposed that they were, in truth, not examples of genuine asphyxia, but of asphyxia conjoined with a state of syncope.

The terror and agitation, at the moment, may very probably so overwhelm the poor sufferer, that he sinks into a state of complete syncope ere yet he has met his danger. The effect of this must be, to render him quite insensible to suffering, and to prevent those writhings and dreadful struggles which attend asphyxia under other circumstances, and which necessarily have a great influence in causing that excessive accumulation of blood in the large veins and the right side of the heart, which is invariably found on dissection. In syncope, on the other hand, there is no such congestion in one part of

the system and vacuity in the other; there is rather a sudden arrest, or a very feeble and imperfect movement of the sanguineous fluid; probably in the same degree at every part: and besides this, and perhaps as a consequence of it, the blood does not undergo the same changes so rapidly, and become so soon unfit for the purposes of life, as when the breathing is suddenly stopped. In syncope, the brain and nervous system are first and primarily affected; at least this is the case in by far the greater number of instances —they are stricken, as it were, momentarily dead, and the animal has not one of its animal functions remaining; all is gone at once, save the mere organic or vegetable life, and this only in an imperfect degree remains; but as long as that spark exists, we may expect to be able to resuscitate the whole; for the machinery of the system, though it has almost ceased to move, is entire, and only requires one sudden impulse to set it again going: but not so in asphyxia;—besides the arrest of the functions, there is a positive mischief inflicted on every part of the system; the one-half of the circulatory apparatus is empty, the other half is gorged, the functions of the brain and the rest of the nervous system are extinguished, or nearly so; in part from a deteriorated blood contained in some of their vessels, and in part also from an actual diminution in the quantity of it in others; and so are those of all the glands and other viscera of the body; here, then, we see that the wheels of the machine have received a positive injury, far beyond that which occurs in the other case. Hence it is, that attempts at resuscitation are so much less successful in the one than in the other of these cases. The following remarks of our author deserve insertion.

"In animals, life can seldom or never be restored when five minutes have elapsed after respiration has been arrested, and it is therefore most probable, that the remarkable resuscitations, reported to have taken place after a much longer duration of apparent Asphyxia, have occurred in forms of syncope having few if any of the characteristics of Asphyxia. Leroy considers it desirable that some means of distinguishing syncope from Asphyxia should be discovered. It is most probable, however, that, when syncope has continued a considerable period, the state of the capillary circulation may acquire more of the characteristics of Asphyxia, and that some congestion may occur in the large veins. In the absence of any correct means of diagnosis, it is proper to neglect all attempts to distinguish the two diseases, and to employ for the restoration of all cases of suspended animation, with caution but with zeal, the means used in Asphyxia." 239.

Allied in some respects to that form of asphyxia which we may designate the "A. Syncopica," is that form of it which occurs in children at the birth from a variety of circumstances, as compression of the cord, premature separation, entire or partial, of the placenta, &c. Except in cases of violent flooding, there is in general no diminution in the quantity of the blood, but this is no longer supplied with that vivifying something which it receives from the placenta, just in the same manner as the venous blood of the adult is enlivened by exposure to the air in the lungs; the interruption, therefore, of the communication in the one case, and of the admission of air in the other, places the beings in very similar conditions, at least as far as the physiology of these conditions is concerned—not, certainly, in their capabilities of being resuscitated. The difference in this latter respect we alluded to, when mentioning the results of Edwards' experiments. Gardien disputes the propriety of applying the term asphyxia to the still-born condition of

infants, and denominates it syncope, because it commences in his opinion, with the heart, which is deprived of its accustomed supply of blood; but he is decidedly in error, when he considers pulselessness as the chief sign of this state. Burns, Desormeaux, and the majority of obstetrical authorities, most distinctly assert, that the umbilical chord, in these cases, sometimes continues to pulsate for a short time before respiration has commenced. Whether the idea of M. Fretau, that pressure on the chord may interrupt the flow of blood in the umbilical vein, without obstruction to that in the arteries, is ever correct or not, it is almost impossible to say; at least we have no data to warrant our assent.

In cases of flooding before the birth of the child, there can be little doubt that its system may be most seriously drained of its circulating fluid, and a state of genuine syncope may be thus induced. Under such circumstances, the death of the infant is to be explained in exactly the same manner as we should explain death from syncope in the adult; but the etiology of asphyxia, at the two different periods of life, is probably modified by the differences existing in their respiratory and circulatory apparatuses, and, we should perhaps add, of their nervous systems. Our reason for including the nervous system is, because the generation of animal heat is very generally admitted by physiologists to be most intimately dependent upon a healthy state of its functions; and we are taught by Edwards, that the capability in animals of retaining life, when the respiration is prevented, is, on all occasions, inversely proportionate to their power of supporting their normal temperature. In the infant, this power is inferior to that in the adult; and hence it may be longer asphyxiated with impunity than the latter.

Our remarks on the treatment of asphyxia will be very short, and we shall confine them to what may be deemed the novelties of the subject. One of the practical deductions which Dr. Edwards has drawn from his experiments (so often alluded to,) is the importance of exposing the body of an asphyxiated person freely to the air, whose temperature ought to be always of a moderate elevation. The practice of clothing the body, or of immersing it in a warm-bath, is decidedly pernicious, as the skin is thereby excluded from the vivifying influence of the atmosphere; and the application of blankets wrung out of hot water, of hot bricks, &c. may have the effect, indeed, of more powerfully exciting the nerves of a part; but this effect is only temporary, and gives way to a corresponding exhaustion of their energies. The best mode of applying heat is in the following method, directed by the Royal Humane Society.

"The natural and kindly warmth of a healthy person, lying by the side of the body, has been found, in some cases of adults, and particularly of children, very efficacious." 39.

A topic of still higher importance to be well understood by every medical man, is the proper method of insufflating the lungs. It is unnecessary, we hope, to condemn the practice of opening the trachea, for the purpose of introducing any tube, except under very peculiar circumstances—no one ought to pretend to the name of a surgeon who cannot insert it through the glottis. M. Leroy has contrived an instrument to facilitate this operation; but the simple manœuvre of pulling forwards and depressing the tongue will open the glottis sufficiently; and if we make pressure on the pomum Adami while we pass the instrument along, it will be prevented from entering the

œsophagus. In inflating the lungs, especially with the bellows, great caution is requisite that the air is not forced in with undue violence, else the pulmonary cells may by ruptured, and fatal consequences ensue.

"Leroy discovered that brisk inflation of air into the trachea killed rabbits, foxes, goats, sheep, and other animals, even when the force employed was that of an expiration from the human lungs." 226.

And we have the following melancholy announcements, on the authority of Majendie, that—

"From the records kept in the city of Paris of the results of means employed for the recovery of persons drowned, the greater prevalence of the practice of insufflation has been coincident with a decrease of the number restored to life." 224.

And that—

"The most limited conclusion to be deduced from these facts is, that insufflation of the lungs, as it has been recently performed in attempting to restore cases of Asphyxia, has not increased the efficiency of the means employed for this purpose, and may even have diminished the probability of resuscitation." 225.

M. M. Leroy and Majendie found, on the examination of those animals which had been killed by the brisk insufflation of air into the trachea, air in the cavities of the pleura, and sometimes bubbles of air throughout the whole sanguiferous system; and as their experiments were repeated on human corpses, with the same results, we at once perceive the dangers of incautious attempts to resuscitate asphyxiated persons. With the view of regulating the quantity of air admitted into the lungs at each inflation of the bellows, M. Leroy recommends that their handles should be provided with a graduated scale, by which the quantity can be accurately determined. The simultaneous raising and depressing of the chest of the patient by means of his bandage, may powerfully contribute to the restoration of breathing. As this apparatus is not very generally known to the profession we shall extract Dr. Kay's description.

"A piece of strong flannel, an old blanket, sheet, or other cloth—most easily to be obtained at the moment—is to be cut of the following size, and in the following manner. It should be six feet in length, and in breadth eighteen inches. Six strips are then to be cut or torn lengthwise on each side. Each strip is to be three inches broad, and two feet long. The untorn portion (two feet in length and eighteen inches broad) is to be placed under the back of the patient, from the arm-pits to the upper part of the thigh bones. The strips are then to be brought together over the chest and belly, interlacing each other from the opposite sides, as the fingers are interlaced in clasping the hands. The strips thus arranged are to be gathered into a bundle on each side, and if they are then drawn in opposite directions by two assistants, the edges of the bandage will be made to approach, and firm and equal pressure be produced on the chest and belly of the patient.

The assistants should thus compress the body of the patient by drawing the bandage in opposite directions, and should then relax it, permitting the chest to re-expand, and performing this process at the rate of twenty-five times in the minute." 57.

In concluding our notice of Dr. Kay's work, it would have been gratifying to us had we been able, consientiously, to approve of it *in toto*. There

are, however, many glaring blemishes, which might easily have been avoided by careful and repeated revision; the prolixity and iteration of details are sometimes almost quite unbearable, and this annoyance is enhanced by the neglect of all precision in the arrangement, and by the introduction of much superfluous matter. Perhaps these errors might have arisen from the author having, at some period, intended to deliver the contents in the form of lectures to an audience:—Are we right in the conjecture? A diligent, and, we may add, a laborious examination of the work, has prompted the suspicion.

That the arguments which Dr. Kay has adduced, satisfactorily demonstrate that the theory of Bichat, in its full extent, is not correct, and that the proximate cause of the arrested circulation in asphyxia is to be sought for, rather in the obstruction to the pulmonary current than in the paralysis of the heart's action, we willingly and cheerfully admit: but it is necessary to state that he has been anticipated in most of his conclusions, and in the general scope of his reasoning, by Dr. David Williams, of Liverpool, who published, in the Edinburgh Medical and Surgical Journal for Oct. 1823, an ingenious and well-written paper, "On the Cause and effects of an Obstruction of the Blood in the Lungs." We have purposely omitted to allude to Dr. W.'s claims before, unwilling, as we always are, to mix up the discussions of personal controversy with the exposition of scientific details.

The following corollaries, announced in the paper referred to, sufficiently substantiate the priority of the author's title.

"1*st*, The blood is obstructed in its passage through the lungs, on suspension of respiration, while its circulation through the other parts of the body continues.

2*nd*, The obstruction of the blood in the lungs, on suspension of respiration, is not the effect of a mechanical cause.

3*rd*, The obstruction of the blood in the lungs, on suspension of respiration, arises from a deprivation of pure atmospherical air.

4*th*, The blood which is found *post mortem* in the left auricle and ventricle, is the remnant after the last systole, and the subsequent draining of the pulmonary veins.

5*th*, The obstruction of the blood in the lungs, on suspension of respiration, is one of the principal causes of the vacuity of the system circulating arterial blood *post mortem*.

6*th*, The immediate cause of the cessation of the action of the heart, is a privation of its natural stimulus, arising from the obstruction of the blood in the lungs." 530.

Our limits preclude any further remarks; but the preceding extract must be considered altogether conclusive. The illustration of each corollary is given at length in Dr. W.'s memoir, which we have much pleasure in recommending to the attention of all future enquiries on the subject of asphyxia. Unfortunately it seems to have escaped the notice of Drs. Roget and Copland, as no reference is made to it, either in the Cyclopædia, or in the Dictionary of Practical Medicine, under the article Asphyxia.

I. HORTUS MEDICUS; OR FIGURES AND DESCRIPTIONS OF THE MORE IMPORTANT PLANTS USED IN MEDICINE, &c. By *George Graves*. Quarto, pp. 264, 44 Plates. Edinburgh, 1834.

II. MEDICAL BOTANY. By *John Stephenson*, M.D. and *J. M. Churchill*, F.L.S. New Edition, by *Gilbert Burnett*, Professor of Botany in King's College, London. Octavo, London.

THE former of these publications is a very splendid and admirable work. The plates are excellent—some of surpassing beauty, and all most faithfully correct. The figures of the "arum maculatum," "menyanthes trifoliata," "secale cornutum," amanita muscaria," &c. are quite perfect. To all who are engaged in the delightful pursuits of botany, and who feel an interest in the promotion of the pictorial art, we recommend this volume with confidence and pleasure; and we are the more anxious to do so, as the nature of its contents prevents us from making such extracts as might enable our readers thereby to judge for themselves. The botanical description of each plant is given with much accuracy, and the remarks on the medical properties and uses, drawn up by Dr. Davie Morries, are sufficiently explicit and instructive. Take, for example, his account of the secale cornutum.

"In many parts of continental Europe, the rye forms a principal part of the food of the inhabitants; in some seasons and in particular districts the grain is subject to a disease which renders it highly poisonous to men and animals. Some animals do not seem easily affected by it; others, among which are swine, geese, fowls, &c. are affected with diarrhœa, vertigo, and latterly, with suppurating tumours and gangrene. Two distinct diseases are caused by the habitual use of the ergotized grain. One, the *Ergotisme convulsive* of the French; the other, the *Gangrene sêche* of the same authors. The first form of the disease commences with vertigo, dimness of sight, and loss of feeling, followed by cramps and convulsions of the whole body, *risus sardonicus*, yellowness of the countenance, excessive thirst, excruciating pains in the limbs, and dull, small, and imperceptible pulse. When the symptoms are of this aggravated nature, the disease generally proves fatal in from twenty-four to forty-eight hours. In milder forms, the convulsions come on in paroxysms, and are preceded for some time by lassitude and the feeling of insects crawling over the surface of the body; in the intervals the appetite is voracious. The pulse and excretions are natural; the disease either terminates in recovery, preceded by scattered suppurations, cutaneous eruptions, anasarca, and diarrhœa, or it ends fatally amidst prolonged sopor and convulsions. The next form of the disease,—the dry gangrene, commences with general uneasiness, weakness, and a feeling of insects crawling over the skin. When these symptoms have continued for some days or weeks, the extremities become cold, stiff, white, and benumbed, and so insensible that deep incisions are not felt; excruciating pains supervene, with fever, headach, and bleeding from the nose; finally, the affected parts gradually shrivel and drop off by the joints; healthy granulations succeed, but the system is frequently so worn out that the person dies before this favourable change occurs. The appetite continues voracious throughout. Various other modifications of this formidable epidemic have been observed in Germany and Switzerland. From the improved state of agriculture, the disease is becoming more rare, though some cases have occurred in Germany since the commencement of the present century. Another very peculiar property has been attributed to the ergot of rye; it is that of exciting the action of the uterus when dormant from protracted unsuccessful

efforts to expel the child. This property is supported by the testimony of many accoucheurs; but it is a remedy which ought to be given only in urgent cases, and in the most careful and guarded manner. It has been said to have the power of causing abortion; but it is the opinion of the best authorities, that it only possesses the property of increasing the action of the uterus when it has already commenced, and that it has no power of inducing uterine action in the early months of pregnancy, at least not without causing constitutional disturbance of a very dangerous nature* The cause of the ergot is not ascertained; it is by some supposed to arise from the puncture of an insect, by others it is said to arise from the presence of parasitical fungi." 128.

Describing the colchicum autumnale, he observes—

"Colchicum possesses the remarkable property of increasing the quantity of uric acid in the urine. This was first observed by Professor Chelius, who states that the quantity of uric acid is nearly doubled after the Colchicum has been taken for twelve days.† As an increased discharge of uric acid immediately precedes or accompanies the favourable termination of a gouty paroxysm, and as the concretions found in the joints of gouty persons are composed of uric acid in union with ammonia, it seems to me not an unnatural conclusion, that the property of increasing the discharge of the acid is as likely to be the cause of the good effects of the Colchicum, as either its sedative or cathartic qualities." 130.

To the lover of botany, the following observations of Mr. Graves, on the presence of sugar in many of our indigenous and most common grasses, will be interesting.

"It is sometimes to be found in a crystalline form, and nearly pure, in the stems and roots of some of our native grasses; as the *Poa aquatica*, *Poa fluitans*, and *Catabrosa aquatica*. It is not a little remarkable that the British species of grass in which sugar is found in a crystalline form, are entirely aquatic; I first met with it in this state in *Poa aquatica*. The circumstance which led me to discover it, was, observing some swine eagerly rooting among mud and weeds that were thrown out of a water-course. I remarked they greedily devoured the roots and stems of some species of grass, which induced me to examine the kind, which proved to be those of the *Poa aquatica*. The roots were large and succulent, but having been exposed to the action of the sun and air for some days, the outer parts of the stems and roots had become dry. I peeled one or two of these, and at the base of each leaf, and of the sheaths, covering the root, I found some small transparent crystals, which were pure sugar. I obtained nearly half an ounce of these, and have since found that this plant, as well as the other two above named, which are the sweetest of our native grasses, if removed from the watery spots in which they constantly grow, and exposed to the action of the sun and air, produce small grains of sugar as before-mentioned. Several pieces of Fucus or sea-weed, also spontaneously exude sugar." 69.

With one more extract we shall conclude.

"Some of the species in this and other genera of the natural order "aroideæ," possess, even in a more remarkable degree than the *Arum maculatum*, the property of causing painful swelling of the tongue. Dr. Hooker mentions the case of a gardener, who, from merely tasting a bit of the *Caladium Seguinum* (Dumb-Cane,) was confined to the house for several days by swelling of the tongue, accompanied with excruciating pain. The juice of this last mentioned

* "The above account is taken from the article Ergot in Dr. Christison's work on Poisons."

† Richard, Histoire Naturelle Medicale, I. 357.

plant, as well as that of the *Arum ovatum*, is sometimes used by sugar manufacturers to assist the granulation when the juice is too viscid. The acrimony of the Arum is entirely destroyed by heat, and though, as has been already observed, a virulent poison when fresh, it becomes not only harmless, but even nutritious when properly prepared. The inhabitants of the Ise of Portland manufacture the fecula and send it to London, where it is sold under the name of Portland Sago. Culture seems to have the power of destroying the acrimony of this genus, and one of the species, the *Arum Colocosia*, is grown as a pot-herb."* 8.

In taking leave of this work, we consider it our duty to point out to the authors what seem to us the chief errors they have fallen into; they are errors partly of commission and partly of omission. On comparing the botanical and pharmaceutical descriptions with those given by Drs. Duncan and A. T. Thomson, in their respective Dispensatories (books which are in every professional man's library,) we find few or no new facts, and certainly no additional information as to the medical uses and properties of the plants. It may be said that the latter are so good as to leave no room for amplification. True; and what then? Instead of repeating the statements of others, we should have recommended the publication of the present very admirable engravings alone, as illustrative of those works on Materia Medica which have, for so many years, been established as leading authorities. Had Mr. Graves followed this plan, the Hortus Medicus might have been published at a cheaper rate, and very probably have obtained, in consequence, a wider circulation.

The omission of figures of many of the most important exotic plants is much to be regretted. In the place of the "anagallis arvensis," arctium lappa," "helleborus fœtidus," &c. which are scarcely admitted into the catalogue of medical botany, it would have been wise to have substituted drawings of the plants which yield the croton oil, strychnine, jalap, ipecacuan, and cubebs; and assuredly the papaver somniferum ought to have been selected in preference to the p. rhœas, and the helleborus niger to the h. fœtidus. This defect we hope to see remedied in a subsequent volume; and the value of it, as well as of the present one, would be enhanced, if some method was followed in the arrangement of the plates. Let it be either alphabetical, botanical (this would be the best,) or pharmaceutical.

The other work on Medical Botany, mentioned at the head of this article, has already obtained the stamp of a widely-extended approbation—and very justly so. It is published in monthly numbers, each containing four engravings, with descriptive letter-press; and the present edition has been much improved under the able superintendence of Mr. Burnett, Professor of Botany in King's College. Eighteen numbers have already (June) appeared, and the later ones fully merit the praise which we awarded to their earlier brethren. When completed, the work will possess this great advantage over the Hortus Medicus—that it will present an entire catalogue of figures of every vegetable admitted into the materia medica; and will thus afford to medical men a valuable book of reference, not only for the indigenous, but also for the exotic medicinal plants, in the event of their visiting foreign

* Rich. Hist. Nat. Med.

countries. So high is our opinion of its merits, that we recommend every student at college, and every surgeon who goes abroad, to have a copy, as one of the essential constituents of his library.

MEDICA SACRA; OR SHORT EXPOSITIONS OF THE MOST IMPORTANT DISEASES MENTIONED IN THE SACRED WRITINGS. By *Thomas Shapter*, M.D. &c. Octavo, pp. 191. Longman and Co. 1834.

As human nature—at least since the flood of Noah—was probably the same as in the present day, there can be little doubt that some—perhaps many, of the diseases to which flesh is heir, occurred in the time of Moses, not essentially different (though modified) from those which we now perceive and treat. Life lingered out then, as now, to the extent of "threescore years and ten"—more or less—but, as they had not the lights of modern pathology, and the discrimination of modern nosology, we can only guess at the particular diseases by which existence was curtailed four or five thousand years ago, by the somewhat vague descriptions contained in the oldest of human writings. It is, of course, more curious than useful to trace these analogies or verisimilitudes—but, in the dearth or profusion (whichever it may be called) of modern novelty, the researches of Dr. Shapter will not prove an unacceptable variety. There is an interest attached to antiquity, which the most philosophic mind cannot divest itself of—and, when the Sacred Writings are in question, the interest is doubled. It will hardly be doubted that we have witnessed a considerable number of dissections of ovarian disease; yet the presentation of a diseased ovarium in an Egyptian mummy, which we saw in the library of our friend Dr. Granville, excited more vivid emotions in the mind than any *post-mortem* investigation which we remember. We cannot give any philosophical or satisfactory reason for this—but so it was—and so it ever will be.

The Jews and the Egyptians have had a great advantage over us moderns. The Sacred Writings of the former will descend, in secula seculorum; whereas, both the *sacred* and the profane writings of the present day have little chance of preservation three or four thousand years hence. The Egyptians took such especial care of the lifeless body, that the mummy comes down to us nearly as fresh as when first swathed in bitumened rollers, and thus specimens of morbid anatomy are preserved beyond the power of wax or spirits in our choicest museums.

We have said that the investigations of Dr. Shapter are more curious than useful—more amusing than profitable. The same remark applies to his predecessor in the same walk—Dr. Mead. It is remarkable that this venerable physician not only veiled his Medica Sacra from vulgar eyes in the Latin garb, but anathematized the attempt to make it popular by translation into English! It is difficult to conjecture the reason for this prohibition. Doubtless they had reference to some religious points of doctrine—probably to the notion, that the diseases mentioned in Scripture were miraculous or direct inflictions of the Deity—a doctrine, by the way, which is, even now, em-

braced by a large portion of society respecting the diseases by which we are afflicted. The cholera, for example, was considered by millions of people, in these Isles, as a direct interference of the Almighty on a sinful world! It is hardly necessary to say, that if we apply this principle of causation to one disease, or to one epidemic, we must apply it to all—nor can the advocates of this doctrine appear very consistent, when they strenously urge the physician to counteract the dispensations of Providence through the medium of drugs!

Our author looks upon the diseases described in Holy Writ as infirmities of Nature, resulting from natural causes, the same as at present, and he thinks that the investigation is interesting, as "shewing the height to which the knowledge of the phenomena attending the physical changes in man had arrived in early times, and the accuracy with which the various observations, opinions, and remarks relating to them are recorded."

The blood is called the life of the flesh (Genesis,) and the heart the vessel from which proceeds the issues of life (Leviticus,) while the bones are considered as the tenement of these life-sources. The period of life is limited in Scripture to three or four score years, after which "strength is labour and sorrow." The approaches to age are marked in Scripture (Dr. S. thinks) by mental, rather than by corporeal defects.

"Remember now thy Creator in the days of thy youth, while the evil days come not, nor the years draw nigh when thou shalt say, I have no pleasure in them."* 7.

We agree with Lorinus rather than with Dr. Shapter. We think that, if he interpreted the Bible wrong, the Bible is right—and that if he construed it right, the Bible is wrong. We think the corporeal functions begin to fail before the mental faculties begin to decay. The corporeal fabric arrives at its full development before the mind attains its maximum of strength—and it feels the hand of time sooner than the immaterial tenant. Our belief, indeed, is, that the mental deteriorations are principally, if not wholly, *caused* by the material dilapidations, and consequently are posterior in point of time, to these last. To this must be added, the bodily diseases to which we are liable throughout the whole range of life, and which, when they act at all on the mind, can only do so secondarily. The following passage bears strongly on a point which we have slightly mooted above.

"From the Sacred Writings we learn, that disease and death are the consequences or 'wages of sin,' and that both are of divine imposition, for 'with a great plague will the Lord smite;' and each may say to himself, 'I know THOU wilt bring me to death.'

So impressed were the Hebrews with a narrow superstitious mode of considering these subjects, that they would not permit the least idea of an influence from natural causes to intervene between their prejudices, and what should have been obvious to them by the tenor of the Mosaic law.

For it is there plainly shown that the plague, though expressly stated to be of divine infliction, is to be treated under the sanction of God by human efforts and natural means, as is ordered of every thing in this world." 15.

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* "Lorinus says, that these last words have much more extensive meaning in the original;—that they relate to the capability of performing one's ordinary duties or business."

In respect to this "divine infliction," it is to be remembered that the ordinary style of oriental writing is often so redolent of figure and poetic illustration, as greatly to obscure the true meaning of the unadorned statement.

"Dr. Mead, in speaking of the plague, is quite of this opinion; 'for these evils and calamities (he observes) which come suddenly, and strike all with terror, are said sometimes to proceed from God; but which nevertheless have their origin in natural causes.'" 18.

If Moses really considered diseases as "divine inflictions," why did he prescribe the means of avoiding or curing them? Why did he prohibit blood —swine's flesh, &c. and also separation from the afflicted? Viewing the diseases of Scripture, therefore, as natural infirmities, and open to human investigation, the author proceeds to particularize them.

LEPROSY naturally leads the van, not only on account of the frequency with which it is mentioned in the Holy Writings, but of the august personages who were afflicted with it. The author has expended great research, and much cogitation, on the analogies or identities of the ancient and the modern lepra; but we regret to say that we cannot transfer any thing useful from the author's to our own pages. These investigations, however, will prove more interesting to divines than to physicians—and more curious than useful to either. The same observations will apply to plague, and to boils and blains. The latter is conjectured by our author to be the same as our present variola. Should this be true, the origin of the disease is not a little curious.

"And they took the ashes of the furnace, and stood before Pharaoh, and MOSES sprinkled it up towards Heaven; and it became a boil, breaking forth with blains upon man and upon beast."

How came it that the animal kingdom escaped this sixth plague of Egypt afterwards? Or was the COW-POX a remnant of this miraculous origin of the variolous poison? We doubt whether the author was quite prudent in meddling with these plagues.

"Of the ten plagues of Egypt, but one, properly speaking, comes now within my province, though I could derive some advantage to my argument in pointing out, that each of them would tend to prove the truth of my positions, that these afflictions are of *divine imposition*, and that they have their *origin* in, and are subject to the ordinary laws, to which diseases are said to be subject in the present day." 110.

"If they were of "divine imposition," how can they be said to have their origin in the "ordinary laws" of nature? If the sixth plague was a miracle, the "ashes from the furnace," thrown up into the air, could not surely be considered as an illustration of the ordinary laws of causation, according to our present knowledge.

In the discussion on the DEMONIACS of the New Testament, our author conceives that the "true condition of the demoniac was lunacy," and that no supernatural agency is inferred—the figurative language of Jews and Greeks attributing mania, epilepsy, and even the higher degrees of rage and distraction to evil demons. This is probably the true state of the case. When a miracle is stated in Scripture we ought to believe it, because the narrative is divine—or states divine things. The course of Nature is interrupted for

the moment, and it is quite absurd to attempt to reconcile the ordinary laws of Nature with their miraculous suspension. What we contend for is, that miracles, and the necessity for miracles, having ceased, we ought not *now* to make every occurrence a miracle—to make every epidemic a dispensation of Providence, and every disease, a divine infliction on the individual for his sins!

The disease of JOB is associated with our earliest recollections. Some have doubted the existence of this personage; but Hugo Grotius appears to our author to have fully proved that JOB was a real person—that his sufferings and patience are a portion of his history, though, according to the custom of the times, it is poetically described. As he was not antediluvian, his age, of more than 200 years, is, we confess, a stumbling-block as to the reality of the individual. Hales places Job's trial 2130 years before the Christian æra.

Having suffered several severe moral ills, in the loss of children, Job became afflicted with boils from head to foot, which greatly disfigured him. His friends remained seven days and nights with him, during which they did not address him, his pain being so great, and his restlessness so much increased, that he spoke in wailing.

Dr. Mead thinks that the disease was elephantiasis; but there seems little reason for coming to this conclusion. Our author's conjecture is far more probable—namely, that it was small-pox.

The disease or disorder of King Saul appears to have been melancholia, rather than mania. It was occasioned by reverses of fortune, and cured by the harp of David.

The malady of Nebuchadnezzar is looked upon by our author as a species of monomania, in which the patient fancied himself an ox, and went into the fields to eat grass accordingly. King Jehoram, Dr. Shapter doubts not, laboured under chronic dysentery, "though some take it to be an hernia, others a falling of the anus, or fistula, &c." Epilepsy, like mania, is repsented in Scripture as caused by the possession of evil spirits. It is needless to comment on this doctrine.

As we said before, there is more curiosity than utility attached to this investigation, though it has exercised the pens and thoughts of such men as Mead, and other celebrated characters. We think the investigation fruitless—first, because it is by no means certain, that the diseases in the time of Moses were the same as they are now. We know that many have entirely disappeared—and that others, as syphilis, &c. have sprung up at comparatively recent periods. *Secondly*, because the statements in Scripture are so veiled in metaphorical language, that it is impossible to come to an accurate idea of the diseases they describe. *Thirdly*, because if we could determine to an azimuth the sacred maladies, it would not advance either pathology or therapeutics.

VINDICIÆ MEDICÆ; OR A DEFENCE OF THE COLLEGE OF PHYSICIANS. By *Sir George Tuthill*, M.D. Fellow of the College.

A MORE feeble vindication of an obsolete, but tyrannical monopoly was never sent forth into the world. Nine-tenths of the pamphlet are occupied with old musty records and decisions, to prove the *legality* of laws that outrage common sense—and that in the year 1834!! There is a halo of prejudice and pride surrounding every corporation—and especially the College of Physicians, which completely distorts the vision of those within that halo—at least many of them—for happily, a respectable minority of the Fellows of the College see clearly the imperfections of their institution. It would be as impossible for the OLD FELLOWS to change their opinions and cast off their prejudices, as for an Ethiopian to change his skin and become white. It is totally useless to argue with them. They are as blind to the signs of the times as a mole to the phases of the moon! Not so with a great many of the YOUNG FELLOWS. Their brains are not so hardened by age as to resist every impression of liberality—the avenues to light and knowledge are not blocked up—and THEY see the state of things around them. THEY are aware that TIME alone, without any Parliamentary interference, would gradually, aye, and quickly too, break down the unnatural and galling barriers that separate the members of one common (and oh! that we could say a liberal) science! THEY are not insensible to all feelings but those of selfishness and pride—and hence the contrast of their evidence, before the parliamentary committee, with that of their seniors.

We will not spend our time so unprofitably as the author has done, in going over all the old, vapid, and perhaps *unjust* decisions of tory and high prerogative judges. Let them *sleep* in the musty archives of the College. That the College and its advocates are now driven to the necessity of resting all their pre-eminence and superiority on the high tone of *morality*, and the deep tincture of *religion* which they have imbibed at Oxford and Cambridge, will be evident from the following extract.

"The College never contemplates the acquisition of *medical knowledge* either at Cambridge or Oxford; but it does contemplate the acquisition of that intellectual and *moral* condition which is best adapted to the pursuit of philosophical researches, and to the *religious observance of all social duties.* The successful practice of physic perpetually involves a just and rapid induction from the simultaneous or concurrent existence of great numbers of minute facts, that can only be appreciated by a mind trained to minute research, to logical induction, and to mathematical exactness. It is this mental training which the studies of Cambridge and of Oxford are intended to secure.

The social relations under which the Physician, is placed, the delicate and complicated conditions under which he is perpetually invited to offer some relief to human misery, render it equally imperative that the highest sense of honour and probity should be demanded and insured. Of this *religious and moral training*, the discipline of the *English* Universities has afforded the best security." 83.

Holy St. Francis! is it come to this? Have the *medical* Fellows of Oxford and Cambridge monopolized all the morality and religion of the profession, as well as all the snug appointments belonging to the Corporation! Must we poor licentiates be damned in the next world for deficiency of reli-

gion—while we are degraded in this world, for want of that morality which is concentrated in Oxford and Cambridge! Really, this decision does not savour much of Christian charity in our judges; and we apprehend that it will require better arguments than any which we see in this pamphlet, to persuade the world that the congregations of youth, in our English universities, are circumstances very particularly calculated to produce a superabundance of either morality or religion, beyond what is acquired in Edinburgh or Glasgow. On the contrary, we unhesitatingly maintain that, from no two points in England, Ireland, or Scotland, of equal extent or population, does such a mass of vice, immorality, and irreligion, radiate annually upon society, as from Oxford and Cambridge. If Sir George Tuthill does not know this (and in charity we hope he does not,) then he knows very little of the world, or of human nature—or of English Universities.

We are sorry to say that, throughout the whole of this Vindication, there prevails a spirit of quibbling sophistry, misrepresentation, and special pleading, that does little honour to a member of any learned profession—and will do no good to the rotten cause which the brochure is intended to support.

It is with reluctance we advert to specimens; but we are bound to show some proof of the justice of our censures.

Thus, to the complaint of the Licentiates, that the "Fellows have usurped all the corporate power, offices, privileges, and emoluments attached to the College," the following *candid* answer is given.

"It is true that a Physician, licensed to practice in London, is 'excluded from the offices of the College, and from any share in the management of the corporation, 'so long as he remains in the order of licentiates; *but he does not necessarily remain in that order. Licentiates are elected into the Fellowship, and become thereby eligible to every office which the College contains.* There is, therefore, no exclusion."

Now was there ever such a jesuitical, disingenuous answer as this given by a man, who boasts of having imbibed that high tone of morality, and that sublime effusion of religion, which Oxford and Cambridge alone can supply? Because a toad-eater, or Sir Pertinax Mac Sycophant of the College is, once in every year or two, admitted to the Fellowship, the pamphleteer unblushingly tells us that "there is no exclusion of the licentiates"!! Proh pudor!

The above is a fair specimen of the quibbling sophistry which pervades the vindication—and which to use the author's own words (p. 74,) is "an auxiliary that honesty and virtue never employ."

Now for a specimen of misrepresentation. "The *successful* licentiates have not admitted that they are subjected to any practical disadvantage." This is *not fact.* Let any one look at the list of malcontent licentiates who have signed the petition to Parliament, and he will acknowledge that there are *many* men there who have been eminently *successful*, in every sense of the word—perhaps more successful than the titled FELLOW who makes this insulting and unfounded assertion. But, whether the successful Licentiates admit or not the existence of "practical disadvantage," we assert, in direct contradiction to the author, that it does exist, and to a vast extent, as every Fellow of the College well knows. Whenever the interests of the Fellow and the Licentiate clash, whether in private practice or in competition for public situations, the Licentiate very generally receives damage. Every engine is immediately set to work by the friends of the Fellows, and some-

times, we grieve to say, by some of the Fellows themselves, to represent the Licentiate as being of a lower caste—as not, in fact, being a regular physician at all—but only, as they jesuitically say, a "LICENTIATE"—a person *licensed* to practise in simple cases, and among inferior classes of society. Hundreds of instances of this kind have come to our knowledge. So notorious is this species of medical tactics in the metropolis, that many Licentiates of talent and experience are deterred from becoming candidates for hospitals, &c. lest their professional character should be injured or destroyed by the use which can be made of this odious distinction! Hence the anxiety of the author of this pamphlet, and others of his politics, to keep up the difference of grade among metropolitan physicians.

We shall conclude these strictures, by exposing one of the most ludicrous absurdities that ever entered into the ratiocination of any man, not confined in Bedlam.

The petitioners submitted that the College of Physicians, as at present constituted, was wholly inadequate to the due regulation of the medical profession in this country—and, further, that it did not provide for the practice of physicians in the provincial towns. Let us hear the sapient and *sane* answer.

ANSWER.—"The first member of this allegation is proved to be false by a single fact; namely, that the Medical Profession is more exalted in this country than in any other country of Europe.

The second accusation which this paragraph of the Petition involves, is the want of that protection which should be afforded to the public by the College against unskilful practitioners. *But the public do not complain: and the capital of England is the healthiest capital in Europe.*"

Shade of Locke! or of any other man who ever wrote upon, or possessed, a "human understanding," was there ever such reasoning as this ushered into the world—and that, too, by an Oxonian? Because the medical profession in England (over which the College has no control beyond the seventh mile-stone—and only over the Fellows and Licentiates within that range) is more respectable than in other countries, *ergo*, the College of Physicians is the cause of this superiority! But the climax of absurdity is not yet gained. Because the public do not complain—and because London is the healthiest capital in the world, *ergo*, the College of Physicians affords ample protection to the public against quacks and unskilful practitioners!!!*

We drop the pen in pity and contempt for such wretched drivellings—such perversions of common understanding, that were they exhibited by any poor FELLOW in GRAY'S-INN COFFEE-HOUSE, they would consign him, without further proof, to the dreary cell of a madhouse for the remainder of his life!

We will offer no excuse—we scorn it—for the severity of these censures. The author of the pamphlet has used all his efforts to represent, directly or

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* The legion of quacks might shew a much better argument on their side. They might urge, that the cause of London longevity is to be attributed to the want of power, on the part of the College, to interrupt the salutary operations of the charlatan host.

by implication, the petitioning Licentiates as a body of discontented, unsuccessful, prevaricating, dishonest, nay, *lying* practitioners, who have ungratefully rebelled against the most pure, moral, religious, and useful corporation that ever existed on the face of the earth. Let the labourer, therefore, receive his reward. We have here exhibited the true character of his lucubrations and vindications, from the rising to the setting sun—from the springs of the Ganges to the sources of the Ohio.

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1. A TREATISE ON DISEASES AND INJURIES OF THE NERVES. By *Joseph Swan.* A new Edition, very considerably enlarged. Octavo, pp. 356—10 Plates. London, 1834.
2. ON THE REFLEX FUNCTION OF THE MEDULLA OBLONGATA AND MEDULLA SPINALIS. By *Marshall Hall*, M.D. F.R.S. &c. &c. From the Philosophical Transactions. London, 1833.
3. A NEW EXPOSITION OF THE FUNCTIONS OF THE NERVES. By *James William Earle.* Part I. pp. 195. London, 1833.

THE three works, or portions of works, before us, contain very nearly six hundred pages. They form but a tithe of what has been written and said, of late years, upon the nervous system. The discoveries of Bell have brought into the field a host of inquirers, each of whom has his theory or his facts with which to settle some disputed point, or illuminate some mystic doctrine. Many, like Majendie and Flourens, endeavoured to dazzle and to captivate by their sleight-of-hand experiments and outré discoveries. They have boxed the compass in the cerebrum, and no one knows how the needle points. Others have laboriously contrived to throw confusion upon doctrine and on fact, and endeavoured to extinguish the lights we possess, without substituting even a glimmer in their place. A few, and but a few, have marched slowly on in the path of induction and of caution, and have offered steady and consistent, if not brilliant information.

The first work on the list is of the latter nature. We commenced a notice of it in our last, and we promised to complete that notice in the present Number. We cordially redeem our pledge. Although it embraces physiological inquiries, its general character is pathological. Mr. Swan presents us with what few authors have attempted—a connected history of the morbid changes that occur in the organic tissues of the nerve, their symptoms, and their treatment. He does not pretend that the Treatise is free from deficiencies and defects, but he trusts that his attempt will be attended with the beneficial consequence of stimulating investigation, and affording an impulse to the observation and diffusion of facts.

The work of Mr. Earle, a relation of the gentleman who holds the office of surgeon to Bartholomew's Hospital, is more of a speculative turn than the preceding. The great aim of the author would seem to be, to run-a-muck at the doctrines of Dr. Wilson Philip.

The paper of Dr. Hall, like others from the same writer, is ingenious, and will occupy our attention. It displays a physiological aspect.

It would be tedious and unprofitable, if not impracticable, to endeavour to amalgamate, in one connected article, works of so various and so opposite a character. We shall, therefore, present such a notice of each in succession, as our limits and their merits will justify or permit.

Of sixteen chapters, composing the work, of Mr. Swan, two were noticed in the last Number of this Journal. The remainder are devoted to the following subjects ;—Painful affections of the nerves in general—painful affections in particular nerves—inflammation of nerves—ulceration of nerves—tumors in nerves—divided nerves—partially divided nerves—effects of ligatures on nerves—compression of nerves—diseased appearances of the spinal canal—injuries of the spinal chord—diseases of the nerves of the senses—diseases of the sympathetic nerve—and tetanus.

I. Painful Affections of Nerves in General.

We cannot refrain from extracting a remark of Mr. Swan's, in reference to the conclusions derivable from experiments. Unless the experimenter be possessed of what he frequently is totally devoid of—cautious scepticism and sober judgment, he will often draw the most erroneous and absurd deductions from what appears to be the most exact and most demonstrative method of investigation. The records of modern physiology afford too many specimens of this description.

"Experiments (says Mr. Swan) for determining the sentient qualities of nerves have not been so satisfactory as to have carried conviction to the minds of unbiassed persons, for when animals of the same species have been subjected to the same treatment, one has expressed the keenest suffering, while another has been altogether unmoved. But observe what takes place on the performance of an experiment. Incisions are made through sensitive parts; these are forcibly retracted for allowing the separation of the specific nerve from its surrounding connexions, and the state of the wound is momentarily varying, so that when the nerve itself is irritated, it is impossible in many instances for the most candid observers to form a correct judgment." 3.

Mr. Swan fills several pages with arguments, to shew that the state of the sanguineous system in general, and that portion of it appropriated to the nerve, must exercise an important influence upon the latter. Perhaps the nature of the subject may offer a satisfactory excuse for the vagueness of the reasoning. At all events we must pass it by, in order to attend to more obvious facts. It would appear that pain, affecting the nerves, frequently occurs in irregular paroxysms, or even at regular periods. In a case of popliteal aneurism, for which the femoral artery was tied by Mr. Swan, the latter phenomenon was noticed. For five weeks previous to the operation, violent pain came on in the leg about half-past ten o'clock every night, and went off at two in the following morning. It appeared to be seated in the sciatic nerve, and was never felt after the operation. In a patient who died of apoplexy, an ulcer placed over cutaneous nerves, near the ankle, was affected with the most excruciating pain at the same hour every morning.

Mr. Swan approaches, with less timidity than moderate caution might occasion, two subjects of no inconsiderable difficulty—the cause of periodical

changes in the functions in health and in disease—and, the primary condition of the nervous system which gives rise to fever. In the meshes of these questions we leave Mr. Swan, and again proceed to obvious fact—the influence of the digestive organs in the production of painful sensations in various portions of the body. There are few physicians or surgeons in good practice, who have not frequently observed the occurrence in question. Instances have been related in which pain was thus occasioned in the cutaneous branches of the fifth—in the nerves of the hand and of the foot—in the shoulder—in the perinæum, and in other parts. On the other hand it is well known that local irritation of a nerve will induce disorder of the digestive organs. Dentition affords many instances of this description. Mr. Swan relates some facts which are worthy of attention. Mr. Pearson, for example, has published the case of a gentleman who had an issue in the thigh which produced vomiting and deafness, and he has also stated that both these symptoms were entirely removed by healing the ulcer. Bichat* says in neuralgic paroxysms there are often spasmodic vomitings, increased actions of the heart, &c. The same symptoms may be produced in making experiments. Thus, in acting on the nerves of the inferior or superior extremities, by irritating them in any manner after they have been exposed, Mr. Swan has often produced vomitings, or convulsions in muscles not supplied by the nerves he irritated. Mr. Wardrop has related a very interesting case. A woman pricked the fore finger of her right hand with a gooseberry thorn, the two first phalanges were very painful, and so acutely sensible as not to endure being touched. After having suffered very much for twelve months, the finger was amputated, and she got completely well.

"The nervous paroxysms," says Mr. Wardrop, "usually attacked her two or three times a day, and one of them always came on at the time of her rising out of bed. During these attacks the pain extended along the finger to the back of the hand, and between the two bones of the fore-arm, darted through the elbow joint, stretched up the back of the arm to the neck and head, producing a sensation at the roots of the hairs as if they had become erect. To these feelings succeeded a dimness of sight, and the pain afterwards went suddenly into the stomach, followed by sickness and vomiting. She had constantly the feeling of a lump at her stomach, and always vomited after taking food or drink. Her flesh too was much wasted, and she had become extremely pale." 19.

In half an hour after the operation the patient felt as well, with the exception of a slight pain in the stump, as she had done previously to meeting with the accident.

Mr. Swan glances timidly at a curious question—how pain is conveyed from one part to another. The enumeration of a few particulars will perhaps serve rather to expose our comparative ignorance, than to shew the extent of our information on this subject. When pain is conveyed from the viscera to the different parts of the body, or from these to the viscera, Mr. Swan observes that the sympathetic nerve and the par vagum form the medium of communication. But we cannot be assured that the spinal nerves and the medulla take no share in the office, nor can we determine what part is enacted by any. The bladder, uterus, and rectum are supplied by plex-

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* Anatomie Generale, tome i, page 186.

uses formed of the combination of spinal nerves with branches of the sympathetic. Now, affections of the bladder cause pain at the end of the penis, or even in the sole of the foot—and pains in different parts of the extremities are experienced in diseases of the uterus and rectum.

In some cases pain has been exclusively experienced on the *side* of the body on which the injury was inflicted. Mr. Swan alludes to the instance of a lady in which this occurred. But females are so frequently affected with anomalous pains of all descriptions, that we fear it would be dangerous to generalize on their peculiarities.

Sometimes the pain does not reach far beyond the affected part, but produces a great weakness of all the muscles of the limb, with wasting, and an imperfect generation of heat. In some cases of tumor in the nerves, the brain has been affected as in epilepsy; and from a violent cause the irritation of a nerve may be extended to the brain, as in the case of a general officer, related by Dr. Hennen,* in which some of the axillary nerves had been included in ligatures after amputation of the shoulder-joint, and pain was felt in the course of the brachial nerves, just as if these had existed, whenever the ligatures were gently pulled; but on one occasion only, when these were forcibly extended, his head became suddenly affected. Diseases of the brain will produce pain in particular nerves; and, on the other hand, violent and long-continued pain in the nerves may produce disorder in the brain.

M. Swan observes that we must not lean too much to the idea that nervous affections imply some peculiar constitutional defect. We must always endeavour to discover the cause of the affection, and, having discovered it, we may possibly remove it. The connexion of morbid excitement of the nervous system with debility is one which should ever be retained in view.

Mr. Swan offers some judicious reflections on the treatment of neuralgic maladies. It is not surprising that his observations present little novelty, and throw no light on the management of an intractable class of disorders. Our knowledge of his practical abilities would have led us to anticipate, what indeed is actually the case, that Mr. Swan would discountenance that empirical employment of drug after drug, which is far too prevalent, and that he would forcibly impress upon his readers the necessity of endeavouring to discover the general or the local cause of the complaint in each particular instance. It is chiefly in this power of analysis and discrimination that the able practitioner is distinguished from the dull and plodding routinist.

Mr. Swan admits the fallaciousness of those hopes which were once entertained respecting the division of the affected nerve. He appears to prefer the excision of a portion, as being more effectual. Of course when the cause of the neuralgia is deep-seated, neither this nor division can possibly succeed. But in some few instances, and probably they *are* few, cutting off the communication between the part of the nerve which appears to be the seat of pain, and the cerebrum, may be useful—and, in such, we need not say, that removal of a portion of the nerve must be more efficient than a mere division, which permits of a subsequent reunion.

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* Military Surgery, p. 191.

II. PAINFUL AFFECTIONS IN PARTICULAR NERVES.

In our notice of this volume we do not pretend to present a strict analysis, for there is necessarily much that is familiar to the well-informed part of the profession. But there are many facts and observations brought forward by the author, which are either new, or arranged in such a manner as to merit our attention. It is our object to select such matter as may seem valuable, and transfer it to our pages in as close and compact a form as its nature will permit.

Passing over some general remarks on intermittent pains, we may extract the following brief enumeration of the causes of tic douloureux. They are, of course, only the condensed expression of many individual facts.

"Tic douloureux in the nerves of the head and face may arise from a spasm of the nerve through sympathy with a distant part; from inflammation of the periosteum and enlargement of the bone contracting the size of the foramina through which the nerves pass, and producing compression or distension; from exfoliating portions of bone exciting irritation and sometimes producing ulceration; from decayed teeth; from spiculæ of bone irritating the brain; from too much vascular action in the brain; from tumours pressing on the brain and the origins of the nerves; from too great vascular action in the painful part; or from connection with an inflamed part as in iritis." 40.

From this enumeration, and probably it is incomplete, the practitioner may infer how indispensable it is to investigate each particular case—to discover what is wrong—and to set that right. But with many this very caution becomes an apology for routine, and an excuse for ignorance. If, say they, the great art is to treat symptoms, why plague ourselves with reading, why lay upon our backs a load of learned and of useless lumber? Such observations we have often heard from the mouths of those half-witted individuals, who affect to despise the accomplishments of learning in their more enthusiastic and more scientific brethren. But these miserable hacks, these petty dealers in purging and in sweating overlook one very important circumstance. They forget that learning, rightly understood, consists in the addition of the experience of others to our own. It is not the wide acquaintance with theories—it is not the ability to cite author after author, name after name, to support some good, or to bolster up some stupid notion—it is not the knowledge of what every one has said or done on every subject since the æra of Hippocrates—all this may be the learning of the gownsman or the pedant, but practical medical learning it is not—genuine philosophical knowledge it cannot be. No, learning in its true sense consists in the accumulation of facts—its right application in the proper use of them. The experience of one man is totally inadequate to store his mind with sufficient facts, to enable him to take a comprehensive view of any subject that presents itself. But, if gifted with the power of distinguishing true learning, and applying it, he renders the observations of others subservient to his own, and extracts the good ore from the earth and the rubbish that inclose it.

The disease before us, tic douloureux, may form an illustration of these remarks. The routinist would either treat symptoms exclusively, or blindly resort to empirical remedies. If his instinct prompted to the former, it would be utterly impossible for him to be aware that, in some cases, tumors on the

brain had given rise to those symptoms, whilst, in others, a carious tooth, and, in others, an exfoliation of the alveolar process of the maxillary bone had been proved, by observation, to occasion them. He might, therefore, prescribe his purgatives or his narcotics, according as the bowels seemed deranged or the nervous system was excited, while the cause of all disturbance remained untouched. Or, if he adopted the empiric method, he might order arsenic or iron, in cases in which there was vascular action in the brain, or in which some source of irritation existed, that tonics or stimulants would render more injurious. But the man possessed of true practical learning would attend to symptoms, and would be ready to apply what we may denominate empirical remedies, at the same time that his observation of the former was directed, and his administration of the latter modified, by his accurate acquaintance with recorded facts, that is, with the circumstances which dissection and observation had shewn in other cases, besides the few he had personally witnessed, to cause or to accompany the disease before him.

We must not lose sight of Mr. Swan. He relates some cases which are worth remembering. In one, a young gentleman had excruciating pain in the face, which had existed for two months, resisted many remedies, and followed a blow, which broke one of the middle incisive teeth of the upper jaw. There did not seem to be any obvious cause for the affection. Mr. Swan cured him by wine and bark. In another case, a gentleman suffered for months from excruciating pain at the back of the head, which succeeded a meal on hashed hare, which had stood in a brass pan covered with verdigris. He was much emaciated. He had employed in vain a variety of remedies. Mr. Swan prescribed a blister at the back of the neck—thirty drops of laudanum to be taken in the morning, when the pain was usually most severe —wine and malt liquor. This plan effected a cure.

"I have seen several severe cases of this complaint, which no means seemed to lessen; and it was only when the teeth on which the disease depended had been extracted that the symptoms yielded. Many people are unfortunate in being obliged to lose several teeth, before the right one is discovered; but the diseased one may generally be known by striking the teeth with a piece of iron, or by feeling between them with one of the bent instruments, used for filling them when decayed." 42.

In one case, where the patient suffered the most excruciating pain in the tongue and throat, and could only swallow with the greatest difficulty, a small portion of the alveolar process irritated the tongue. Mr. S. removed this with his finger. The pain immediately ceased, and did not return.

Mr. Swan observes that it is not unusual, in diseases of the lungs, for the functions of the brain to become disordered, and to be accompanied by severe pains in the head and face, resembling tic douloureux. If the perspiration has been checked by acids, &c. says Mr. S. it ought to be restored as the best way of relieving the brain and the affected nerves. He relates an interesting case, communicated to him by Sir A. Carlisle, in which bleeding removed the complaint. A lady, aged eighty years, had tic douloureux in the suborbital branch of the fifth pair of nerves. The pulse was very full, therefore sixteen ounces of blood were taken from the arm. Three days after she thought herself relieved, but as the pulse continued still very full, twelve ounces more of blood were taken away. Three days after the last bleeding, she was bled again to sixteen ounces. She was now entirely free

from pain, and never had any return of it, and died two years after this period of apoplexy.

Practitioners should remember that, in cases of this disease in advanced life, great caution should be used in the exhibition of stimulants and tonics, the brain being frequently affected, and appoplexy liable to supervene.

Mr. Swan gives a case, in which a gentleman suffered from pains in various parts of the body, but most frequently in the limbs, which resembled tic douloureux in violence. They were sometimes confined to a small spot in one leg, sometimes in the other, or in the arm, or shoulder. When situated in the latter part, the patient was usually very sallow. The complaint arose from a disordered state of the digestive organs. By the use of blue-pill, and aperient and tonic medicine, he was always very much relieved, and for some time remained quite well. When the pain was in the lower extremities, the cause was generally a collection of fæces in the larger intestines, and he was relieved by purging.

Mr. Swan observes, and the caution should be treasured in the minds of practitioners, that when painful affections of the nerves are complained of, especially in the extremities, the condition of the intestines and of the genital and urinary organs should be carefully investigated. Diseases of the alimentary canal will produce partial affections of the nerves of the limb, and sometimes of a single finger. Pain does not always affect the nerves immediately connected with those of a diseased organ, but sometimes such as are at a distance. One gentleman had generally pains in the fingers whenever he had a motion; another, at the backs of the fingers in evacuating the bladder, when much distended. In the case of a lady, who suffered from disturbance of the digestive organs, with palpitations of the heart, pain in the course of the left ulnar nerve ceased after a severe affection of the uterus. Our author states that, after accidents which have effected the muscles or the nerves, pain and weakness will continue for a long time, and the general health become impaired. In several of these cases, the subcarbonate of iron, taken in large doses, has strengthened the system, and allowed the local morbid irritation to subside.

Mr. Swan concludes the chapter by some observations on those painful affections of the back, unconnected with actual spinal disease. We shall have an opportunity of directing attention to this subject in our next Number, and we, therefore, proceed to the third chapter of the work before us.

III. Inflammation of Nerves.

This section is brief, and its contents are proportioned to its brevity. They may be simply stated to amount to little more than this:—That acute or chronic inflammation, in parts surrounding nerves, may implicate the latter —that the nerves of stumps not unfrequently become affected with chronic inflammation, occasioning enlargement of their ends—that the nerves in the neighbourhood of diseased joints are also apt to become enlarged—and that sciatica appears to be a genuine idiopathic inflammation of the great sciatic nerve.

But there are some particular circumstances or facts, at which a less hurried glance is necessary.

Thus, Mr. Swan relates a case in which, after suppuration beneath the

palmar fascia, great heat and a pricking pain, with diminution of sensation, remained for some time in the three large fingers, which were bent down to the palm. The patient gradually recovered. He alludes to Dr. Hennen's statement, that, after gunshot injury in the vicinity of a nerve, secondary paralysis frequently takes place, in consequence of inflammatory action extending to it, or tumefaction pressing on it. Œdema of the extremities is another consequence of a similar condition. Mr. Swan himself details an interesting case of enlargement of the median nerve, from an injury to the wrist. We must extract the case.

Case. "David Franklin, aged twenty-two years, was admitted into the county hospital about the middle of October, 1820. He said that, seven years before, he was holding a horse, with the halter tied round his hand, when, the horse running back, the wrist was injured, and became immediately bent. The part was violently pulled after the accident, and thereby further injured. He had great pain in the wrist and palm of the hand ever after, and a slight pain at the back of the hand. The skin at the back of the hand was injured, and was continually ulcerating. The thumb and three fingers were always bent towards the wrist, and could be extended only in a very small degree, and the sense of touch was lost. As the hand was quite useless, and the source of much inconvenience, I amputated it, and the part soon healed.

On examining the hand, I could not perceive any other alteration in the carpal joints, except what would arise from their being kept constantly bent, and it did not appear that any serious injury had been inflicted on them. The muscles in the anterior part of the forearm had contracted a permanent shortening. The median nerve, where it passes under the annular ligament, was much enlarged, and its natural connexion with the sheath of the tendons of the flexor muscles of the fingers thickened. Several of the digital nerves, towards their termination, had a gangliform enlargement." 61.

Mr. Swan next adverts to Mr. Langstaff's paper on the healthy and morbid conditions of stumps, and to the well-known case which he relates, of a female who twice underwent amputation, for excruciating pain dependent on a morbid condition of the nerves. On examining, after the second amputation, the stump which had resulted from the first, the median, radial, and ulnar nerves were found remarkably large, the extremities of the two latter being greatly increased by deposition of organized lymph. The second amputation was successful, and we may venture to remind our readers, that this success was probably due, in a very great degree, to the precaution adopted by Mr. Langstaff, viz. drawing out each nerve to the extent of half an inch from the surface of the stump, and then cutting it through.

On the treatment of inflamed nerve nothing need be said. The principles which must direct it are obvious enough.

IV. Ulceration of the Nerves.

This chapter is more ingenious than satisfactory, and perhaps the amount of really useful information contained in it is small. Our author appears unable to offer much that is certain with respect to the ulceration of nerves. He relates no case in which this can be looked on as an idiopathic or peculiar lesion. An instance quoted from Morgagni is the most direct and most to the point of any. The case in question was one of aneurism in the right groin, which extended backwards so much as to produce an ulceration of the sciatic nerve.

"In the last month the pains became most severe, not only in the tumour, but sometimes beneath the internal malleolus, in which place only, violent as the pains were, the foot was sensible, being in every other part deprived of feeling and motion. In all this month, he neither had an interval of ease, nor any sleep until his strength failed; then for some days he lay half asleep, and so died.

On examining the limb, the nerve was so much eroded, that a few fibres hardly remained, by which the superior and inferior parts were joined together." 84.

The chief aim of Mr. Swan, in this division of his work, appears to be, to account for the sufferings which some ulcers cause, and to suggest the propriety of removing a portion of the nerve or nerves that are implicated in such ulcers. He details, at some length, the particulars of three cases of this description, in one of which the operation was performed, though with only a partial degree of success. In the first case, a fungous ulcer was connected with a carious hollow in the tibia. The sciatic nerve and many of its branches were enlarged. The branch of the anterior crural, accompanying the saphena vein, was at one part nearly surrounded by the ulcer, and in two others firmly united to the adjacent parts. The peroneal nerve and its branches were enlarged. The dorsal branch was at one part surrounded by the ulcer, to which an inch and a half was firmly united; an inch of this appeared rather smaller, and in a state of ulceration, and in one place nearly divided. The anterior tibial nerve was also united to the surrounding parts, and in one place so compressed by the enlarged tibia, as only just to admit of being recognized.

In another case, a fungous ulcer existed on the outside of the left leg. The pain was extremely severe. Branches of the peroneal nerve were found to be involved in the base of the fungus.

In the third case, excision of a portion of the affected nerve was performed. The ulcer was situated on the left leg, beginning about its middle and reaching nearly to the instep; it extended across, from beyond the inner edge of the tibia to the fibula. The pain was violent, and extended up the outside of the leg to the ham, and from thence to the back. Mr. Swan excised about an inch of the peroneal nerve, at the ham. The patient was greatly relieved after the operation, but he still suffered occasionally from the connexion of the saphena nerve with the ulcer. The latter of course continued —the patient wasted, and amputation was performed. The tibia was found affected with caries and necrosis. The saphenus nerve was much enlarged, and was connected with the ulcer. The sciatic and the peroneal nerves were enlarged also. At the place where the latter was divided, one new branch, if not more, went from the upper portion to the anterior tibial nerve.

It is probable, from a candid review of these cases, that the operation of removing a portion of a nerve will be applicable to few instances of painful ulcers. For, in an early stage, the ulcer may admit of cure, and the pain be in consequence removed, without the necessity for an operation; and in the latter stages, when an operation is more indicated, the disease has involved so many tissues, that amputation is required to preserve the limb or life. At the same time, it would be proper to keep Mr. Swan's suggestion in view, as a case might occur adapted for a trial of it; and the cases he

relates are valuable, as shewing the exact condition of the nerves in many very painful ulcerations.

"In people advanced in life, the teeth of one jaw are sometimes entirely lost, so that those of the other are apt to press very much on the soft parts of the mouth, and produce slight ulcerations, which sometimes cause very violent pain, exactly resembling the tic douloureux; therefore in all cases which will not yield to the usual remedies, the mouth ought to be carefully examined, as the symptoms depending upon an ulcer produced in this manner can only be cured by extracting the tooth.

Sometimes small portions of the alveolar processes will exfoliate and remain attached to the gum, producing violent pain in the tongue, and rendering the act of deglutition very painful; therefore, when the nerves of the tongue are affected, it is right to feel along the inside of the gums with a finger, that any rough substance may be removed. In all other painful affections of the face, similar examinations should be made, as incrustations of tartar may, by pressure, produce ulcerations, and be the cause of unyielding symptoms." 85.

The fifth chapter is devoted to the consideration of tumors in nerves. This was noticed in our last Number, and we, therefore, pass on to the subject of the sixth chapter.

VI. Of Divided Nerves.

The symptoms occasioned by injuries of the nerves, though occasionally very violent, are too capricious to allow of any opinion being formed, à priori, respecting their severity. When a nerve has been divided, and the external wound has healed by the first intention, very little pain is usually experienced. But an open ulcer, connected with a wounded nerve, is generaly very painful, and sometimes produces very violent symptoms; so that when a nerve has been divided, it is a matter of the greatest importance to produce union of the parts about it by the first intention, because then the divided extremities of the nerve escape many sources of irritation. It is necessary to remove as much as possible of the coagulated blood, and every thing that can act as an extraneous body. If the external wound has healed, and there are marks of inflammation about the cicatrix, the nerve is frequently affected with severe pain, which is generally aggravated by any motion of the part. Rest, leeches, and evaporating lotions are the best means to be employed.

Case. A man had a fungous tumor on the lower lip, in which he suffered excruciating pain, resembling tic douloureux. Mr. Swan cut out the diseased part, and the wound healed well. In about a week the patient returned. The upper part of the cicatrix was rather redder and more swollen than it should be, and was still the seat of excruciating pain. Mr. S. ordered two or three leeches to be applied to the lip, and prescribed appropriate remedies for a furred tongue and disordered stomach, under which the patient laboured. These remedies removed the complaint, and several years afterwards the patient remained quite well.

Mr. Swan relates a case, displaying the advantage and necessity of attention to the state of the digestive organs, in all diseases and injuries of the nerves.

Case. "Miss Carr, about thirty years of age, in cutting some bread, wounded the skin on the inner side of the thumb, as near as possible to its extremity.

She said there was very little bleeding at the time. When I first saw her, the wound was quite healed. She could not put her hand behind her. She had numbness in the thumb, and occasionally pain in the outer side of the forefinger, the pain extended as high as the elbow. She had pain in the head before the accident, and now her digestive organs are very much disordered. She had fomentations of poppies applied to the hand, and a poultice made of the same to the thumb. She took five grains of blue-pill every other night, and an aperient mixture with magnesia. The pain began to abate in a few days, and gradually got less, until it entirely left her." 103.

When a nerve has been divided, and the wound does not heal by the first intention, but inflames, violent pain, and frequently spasms are produced, from the communication of the inflammation to the nerve. Mr. Hunter has shewn that a wound of any part, made internally, may heal by granulation, independent of any secretion of pus. Mr. Swan has seen this process, in the healing of a divided nerve, in a dog, who did not appear to suffer much pain. Neither is much pain experienced when divided nerves heal by the effusion of coagulable lymph.

"Nerves connected with external wounds granulate like other parts, as I once had the opportunity of observing in the leg of a boy, that was amputated some time after a compound fracture, when the soft parts were in a state of ulceration. Although the result has been nearly the same in all the experiments I have made, yet, in some few, Nature has been backward in perfecting the restorative process. And even when experiments have been made on both the posterior extremities of the same rabbit, the divided nerves in the two limbs have now and then exhibited very different appearances; in one, the healing process has been going on properly; in the other, hardly any attempts have been made to begin it; the usual increased vascularity has been wanting, and consequently the deposit of coagulable lymph; and thus I conceive it may be in the human subject, for, in some instances, the union never properly takes place, as the patients are ever after either deprived of sensation, &c. or exposed to unpleasant effects from cold, &c. in the parts beyond the divided nerve." 105.

In a case of fracture of the thigh-bone immediately below the trochanter, in which the patient suffered more from pain than is usual in such injuries, the sciatic nerve was found to be partially lacerated. Mr. Swan is of opinion that such accidents are more frequent than is commonly supposed.

VII. Of Partially-divided Nerves.

Mr. Swan observes that, when a nerve has been wholly divided, each portion immediately retracts, so as to leave a considerable space between them. But when only a partial division has taken place, the divided portions retract in the same manner, but not in so great a degree, and leave a space, whilst the undivided portion remains of the same length as before the division. Under these circumstance, the undivided fibril or fibrils must be stretched, and this stretching *should* prove a source of pain and irritation. Yet facts would rather seem to shew, that it does not; for, from the experiments which Mr. Swan has made in partially dividing the nerves of animals, it does not appear to him that they suffer more than when a nerve has been wholly divided.

Mr. Swan devotes some pages to the consideration of wounds of nerves in the operation of venesection. That this must occasionally happen, no one acquainted with anatomy can deny, but that the bad effects have been

greatly exaggerated we cannot for an instant doubt. Many of the cases related as examples of this accident appear to be only instances of those hysterical pains to which young women are prone, which frequently follow trifling operations, and as frequently occur independently of any. However, Mr. Swan rather leans to the opinion that the accident is frequent, and appears to have met with many examples of it. We cannot say that we ever witnessed one satisfactory instance, although it may be readily believed that we have seen a fair number of persons bled. Mr. Swan attributes a large share of the mischief to inflammatory action in the wound.

"I have very little doubt but by far the greatest number of injured nerves in venesection is made troublesome by using the arm too soon, and bringing on inflammation; for I have never seen any bad consequences in those patients who have been so ill as to be unable to do any thing.

Whenever a person has complained of very acute pain on the opening of a vein, great care ought to be taken to close the wound well with a linen compress and bandage, and to keep these continually on the orifice, and at the same time to confine the arm in a sling until the wound is perfectly healed." 115.

He relates a case to prove, that if the external wound heal by the first intention, the injury of the nerve may be of little consequence. He alludes to the supposition that the injury of a nerve in venæsection is always a partial division, and that a complete division is necessary to effect a cure. This notion is obviously so vague, so unsupported, and so contradicted by facts that it does not require particular refutation.

Mr. Swan details some cases to shew the serious symptoms that may supervene after such injuries. Omitting one from Bonetus, we may introduce one communicated to our author by Dr. Wilson of Grantham, because it displays the general characters of cases of this description.

Case. "I was desired," says Dr. Wilson, "to visit Mr. B.'s housekeeper, at ——, I found my patient in strong convulsions, and held upon the bed by several assistants; her hands were strongly clenched, and she was struggling greatly: she soon after became comatose. I was informed that she had been let blood two days before by a gardener; that she complained very much of the arm where she was bled, and of a pain shooting from thence to the shoulder. I examined the orifice of bleeding, which was in the median vein; it had not healed, was somewhat inflamed, and a thin liquor oozed from the lips of the wound. While I was making this examination she became again strongly convulsed, as I supposed, from the irritation I had caused. With a view to interrupt the communication from the diseased point to the sensorium, I applied a tourniquet above the part: a remission of the spasms soon followed, and I administered an anodyne; but the convulsions, after a short interval of ease, recurred as before, and the application of the tourniquet was again made without any good effect. As I had no doubt that the cause of the disorder was an injury of a cutaneous nerve in the operation of venesection, I determined to endeavour, by a transverse incision, to divide the nerve above the injured part, and to destroy its connexion with the sensorium; I therefore made an incision while the convulsions were most violent, of about an inch in length and small depth just above the orifice: no mitigation of symptoms was perceived; but on making another incision above the former one, somewhat deeper and longer, she cried out immediately, to the astonishment of the attendants, 'I am well, I am quite well, I can move my arm;' which she began to move, and continued to do so with great delight for some time in various ways. She had no return of the spasms, and very soon got well." 119.

It is worthy of remark, that the subjects of the majority of these cases are females. We cannot but suspect, which we do however with humility, that the lady in the last instance gave way to that peculiar habit of her sex—excitability of the nervous system on comparatively slight occasions. It is curious, at all events, that the relief from division should be so instantaneous. An uncharitable person would hint that the knife might possibly have proved disagreeable.

Mr. George Bell has related a nearly similar case, in which he adopted a practice which will find few imitators or admirers. He applied two ligatures upon the vein, and removed the portion contained between them. We need not point out the obvious dangers attendant on such an operation.

Mr. Swan supposes that in the wounds made in venesection, it is frequently a very small filament that is disturbed, which in some instances may be connected with the edge of the wound; and he imagines that the unfavourable symptoms may be removed by nipping up the portion of skin forming the lips of the wound, and removing a very little with the blade of the knife held horizontally. He mentions the particulars of a case illustrative of these suppositions, but it does not appear by any means satisfactory. Another case is quoted from Sabatier's Médecine Opératoire, in which uncontrollable trembling of the leg and thigh succeeded a stab at the inferior and inner part of the left thigh, in the course of the saphena vein and nerve. The patient ultimately recovered without any operation. Mr. Swan relates a striking instance of the melancholy severity and pertinacity which these affections occasionally manifest.

Case. Mrs. E. æt. 40, received a cut on the inside of the first phalanx of the left thumb. Immediately after the accident she felt a numbness in the arm, and a sense of fulness, as if the skin would burst; these sensations continued for a fortnight, and the wound healed very well. At the end of this time, violent pain came on, when a tremulous motion could be seen in the part which it occupied. The pain was termed startings, or spasms, by the patient, and was felt in different ways, but the muscles were not affected. These spasms were felt all over the body, though they were by far the most frequent in the upper half of it. She frequently felt a great heat in the chest and abdomen, but most particularly in the latter, and the same startings as in other parts of the body. The sensations were sometimes as if the flesh was pinched with hot irons; sometimes a great heat, as if hot water was poured down her back; sometimes she had frequent shakings of the whole body, which were unattended by pain, and were most relieved by drinking hot water. The spasms were not confined to the left arm, but she had them at the same time in the right, and frequently in the right when she had none in the left. The fore-finger was as painful as the thumb, and if any thing touched either of them the spasms were produced, which continued many days. She had a good appetite, her bowels were confined, and her tongue furred but she had no thirst.

Sedatives and antispasmodics seemed to do her most good, though nothing was productive of much benefit. At the end of six months the spasms were less frequent, but were reproduced if the thumb or forefinger was moved or touched. Succeeding years brought each some mitigation of her sufferings, but even after seven had elapsed, extreme susceptibility of any

impression still remained in the thumb, and the forefinger had not recovered its natural condition. Lifting a weight, or using the right arm much, always produced sensations as if needles were running into it, and attempting to use the fingers of the left hand, as in knitting, produced giddiness. She continued to be affected with the spasms in every part of her body till her death, which happened nine years and six months after the occurrence of the accident, when she seemed to die worn out.

Mr. George Bell has published a case in which violent nervous symptoms followed a wound on the radial side of the thumb, half-way between the first and second joints. After a variety of means were employed without avail, amputation proved successful.

Mr. Wardrop has related a case in some respects similar to the preceding one, and in which he relieved the patient by an incision made beyond the wound. There was more febrile excitement in this case than is usually observed, and it is most probable that it was very much occasioned by intemperate living, which also produced inflammation of the injured nerve, and the other symptoms.

Passing over a very long case detailed by Mr. Swan, we shall merely pause to extract his conclusions respecting the treatment of these affections.

"From experiments on animals it appears, that in whatever way wounds of the nerves are made, they are repaired by nature alone. It becomes then necessary to inquire under what circumstances the interference of a surgeon is requisite, when the nerves have been injured in the human species.

In bleeding, it is undoubtedly proved that the nerves sometimes suffer from a wound by the lancet; in many instances there have been violent symptoms, but in course of time these have subsided: it is therefore right, when this accident has happened, to wait for a while, and try by palliatives to assuage the violence of the pain and other symptoms that may occur. But if the irritation be so great that convulsions have come on, as in a preceding case, and threaten the patient's life, a similar operation should be attempted, in order to cut off the communication between the brain and wounded nerve.

When, however, the disease has lasted a long time, and nothing has afforded relief, and the constitution is suffering very much from the irritation, the division, or the removal of a portion of the nerve ought to be tried, or the amputation of the part where the injury was received. Amputation of the thumb has proved successful in Mr. G. Bell's case, where the nervous symptoms proceeded from a wound: it has also been successful in Mr. Wardrop's case, where the disease originated in a prick of the finger. The loss of a thumb is a very serious one, but when we consider that it is of no use in its present state, and set against the loss the agony which the patient would otherwise continue to endure if the removal of part of the nerve has not succeeded, I think the probable advantage of being freed from pain, and consequent injury of the constitution, may reasonably be looked upon as fully compensating for the loss. Should the disease be in a finger, less hesitation about its amputation would be necessary. When it is in a large nerve of the upper or lower extremity, and a question arises whether the limb should be amputated, or a portion of the nerve removed, the latter, I think, ought always to be done, except under very particular circumstances.

From the consideration of the preceding cases, it must be confessed that much remains to be desired in the treatment of these distressing accidents." 142.

Mr. Swan concludes the chapter with an allusion to Mr. Pearson's recommendation, to induce extensive cutaneous irritation in cases where the

nervous system seems generally affected by the local injury. Mr. P. employs a liniment composed of olive oil, turpentine, and sulphuric acid. In the instance of a young lady, in whom the arm and hand had become nearly useless, three applications of this liniment were sufficient to effect a cure.

VIII. On the Effects of Ligatures on Nerves.

Passing over Mr. Swan's account of the processes which follow the application of a ligature to a nerve, and of the symptoms, which are almost obvious, we may state that he is of opinion that the application of a ligature to a nerve is scarcely justifiable under any circumstances. In cases of hæmorrhage the artery can generally be separately secured, and, if it cannot, Mr. S. thinks the actual cautery would be preferable. We feel inclined to doubt the necessity for so much dread as Mr. Swan would appear to entertain. We have seen the ulnar and the tibial nerves included on several occasions in a ligature, and have witnessed very often the tying of smaller nerves. Yet we have never seen any serious consequences follow, and the pain subsided sooner than might reasonably have been anticipated.

"When, however, the application of a ligature is decided upon, it ought to be fine, and strong enough to allow of its being drawn so tight as to completely strangulate the part of the nerve on which it is applied, for then the nerve is brought nearly to the same state as when it has been simply divided. On the contrary, if the ligature be coarse, it will not completely strangulate the nerve, consequently there will be great irritation and increase of danger to the patient. And unless the nerve be so firmly compressed by the ligature as to prevent all communication of sensation, and likewise circulation of blood between the two portions of nerve, the ligature would cause such an enlargement of both its extremities by the irritation it would create, and would be with such difficulty dislodged, that if the patient should not suffer extremely at the time, it would most probably cause the formation of a tumour, producing so much pain as gradually to wear out his strength." 151.

We fancy that few surgeons will voluntarily tie a nerve. Its ligature is usually effected in bungling attempts to secure an artery, and the thread that is employed is such as is adapted to the latter. For those who do intend to tie nerves, or expect to include them with the artery they are seeking for, Mr. Swan's injunctions respecting the ligature may be useful.

Mr. Swan quotes an interesting case from Dr. Hennen. The axillary nerves appeared to have been tied, and traction exercised upon the ligature occasioned exquisite pain referred to the course and along the distribution of the nerves of the extremity. He also alludes to two cases mentioned by Larrey. The patients died of tetanus. In one, where the arm was amputated, and the median nerve had been included in a ligature with the humeral artery, the portion of nerve below the ligature was swelled out like a mushroom, and that above was much enlarged and of a reddish colour. In the other, nineteen days after the amputation of the leg, the extremities of the nerves were swollen in the same manner, and adhering to the surrounding parts. Portal* relates a case, where this tumor formed above a ligature that was put on the sciatic nerve after amputation of the leg. The patient

* Memoires de Chirurgie Militaire, tom. iii. p. 290.

had suffered horrible pains for more than two years, which he always referred to the end of the foot; and after death this tumor was found.

IX. On the Compression of Nerves.

Mr. Swan commences by remarking that a nerve may admit of a certain degree of extension, without uneasiness or pain resulting. But if the extension be considerable, pain is excited; and if the extension be increased, the pain is increased in proportion, till at length the nerve begins to ulcerate, and if the pressure be not removed it becomes almost destroyed by this process.

"When a nerve is pressed against a bone for a short time, an uneasy sensation is produced, and the parts to which it is distributed feel benumbed. When the pressure is continued longer, these parts entirely lose the power both of sensation and motion; but if it has not been very violent they will recover.

It is difficult to say precisely in what manner a nerve is affected by pressure, when its functions are destroyed without producing any altered appearance. When there is paralysis unattended by pain it is most probable that there is merely a functional disorder of the nerve. But when the paralysis continues, and particularly if there be pain and tenderness in the part of the nerve that has been pressed, it may be suspected that inflammation has been excited and coagulable lymph effused between the fibrils, so as to produce enlargement." 156.

The treatment of nerves compressed and occasioning pain is simple. Leeches, evaporating lotions, and rest, in the first instance, succeeded if necessary, by counter-irritants, constitute the obvious remedies. Stimulating liniments and friction are required when the function is impaired, without inflammatory action being present.

"People frequently complain of pain in the lower extremities which is sometimes very excruciating. It is often occasioned by the use of tight garters, which press the nerves against the bones. In these cases it is generally absent in bed, and increases towards the latter part of the day, and has often been altogether relieved by discontinuing garters and whatever could make any undue pressure." 157.

Mr. Swan observes that where pains in the limbs are complained of, the state of the feet, and particularly that of the nails should be examined. He relates a case in illustration of this caution. The patient had intermitting pains of the great toe and ankle of the left side. There seemed to be a little thickening at one corner of the nail, and on pressing this the pain was immediately produced. Mr. S. cut off this portion of nail and found an indentation in the flesh about the size of a pin's point. This slight operation was very painful. He was very subject to disorders of the digestive organs. Bark, an opiate draught at night, and friction of the leg with camphorated liniment, effected the patient's cure. Perhaps it might be thought that the quina divided the merits of the cure with the scissors.

Mr. Swan mentions a case in which pain in the left leg was produced and kept up by the pressure of an encysted tumor on the anterior crural nerve at its origin. Pain is often felt in a part from pressure on the origin of the nerve that supplies it. This frequently takes place in the course of the sciatic nerve, and sometimes of the anterior crural. Purging has given great relief when the pain has arisen from a distention of the sigmoid flexure of the colon and

the rectum. Portal relates the case of a woman who had a very great curvature of the spine, and three or four hours after each meal complained of much pain in the great toe of the left foot; it was always increased by injections, but went off when she had a copious alvine evacuation. It was found to have been produced by pressure made by the last false ribs on the sigmoid flexure of the colon, which caused the fæces to have great difficulty in passing, and in consequence compressed the lumbar plexus of nerves.

Mr. Swan details the particulars of a case, in which an injury of the shoulder appears to have affected the axillary nerves. The patient, a lady about sixty years of age fell from some height, and struck the head and shoulder. Mr. Swan discovered, on examination, that the portion of bone which forms the glenoid cavity of the scapula had been broken. She complained very much of pain, which struck up the neck and down to the fingers, and was very severe about the elbow; her forearm and hand were nearly paralytic. Under appropriate treatment she improved very much, and at the end of eleven weeks, the arm could be moved freely backwards and forwards without pain, though it could not be lifted very far from the side without considerable pain. She continued to advance towards recovery, till four months after the occurrence of the accident, when, the arm being suddenly and rather violently moved, very great pain was immediately produced. Mr. S. could not discover that any fresh injury was done to the bone, but all the former symptoms returned, and she was brought back to nearly her original condition. It was fourteen months after the injury before the patient had regained the perfect use of the limb. A large blister seemed to occasion benefit.

An interesting case of apparently more severe injury to the same plexus of nerves has been published by Mr. Earle. A cure would seem to have been ultimately obtained.

"I introduce the following case, because it shows that when there has been a paraplegia, that it is not merely of consequence to draw off the urine on account of the safety of the bladder, but because its over-distention presses on the nerves and tends to prevent their recovery. This idea forcibly struck me the first time I used the catheter for the patient who is the subject of the case. The bladder was very much distended, and urine kept constantly running from the penis. The distention of the bladder caused much uneasines; but immediately after I had drawn off two quarts of urine, the lower extremities were more sensible, and that tingling was felt in them, which is known to every one who has been in a position to press the sciatic nerve, and has experienced the sensation that arises when the pressure is removed; and I conceive that such repeated pressure on the nerves, which are already very much enfeebled, must tend very materially to retard, if not to prevent, their restoration." 165.

The preceeding quotation so fully explains the fact and the inference for which Mr. Swan introduces the case, that we do not think it necessary to extract the latter. Mr. S. concludes the chapter with an instance of what he thinks was determination of blood to the spinal chord. It is practically valuable, and we fancy most practitioners must have met with some resembling it.

Case. The patient was a boy, aged three years and nine months. He went to bed apparently well, on the 17th February, 1821. In the night he dreamt, and his sleep was very much disturbed. Towards morning he com-

plained of pains in his legs, and was obliged to be taken out of bed by his mother very early. When brought to Mr. S. at 8, a. m. he had entirely lost the use of his lower extremities. His pulse was quick, his tongue furred. He had no head-ach, nor did he make any complaint of his back. Mr. Swan ordered six ounces of blood to be taken from the arm, which he found to be very florid, and a blister to be applied to the back: and two grains of submuriate of mercury to be taken every four hours. In the course of the day he moved his legs, and the next morning was able to walk. In a few days he appeared quite well, and has remained so ever since. The stools were at first quite black, but the blood on standing had not an unhealthy appearance. Whatever was the actual condition of the brain, the medulla, or its membranes, there can be no question of the propriety of the practice adopted by Mr. Swan.

Here we must bring our notice of the present work to a conclusion. The remaining space is the property of Dr. Hall and Mr. Earle. We have not been enabled to analyze or to review the last five chapters of this volume. They are dedicated to diseased appearances in the spinal canal—injuries of the spinal cord—diseases of the nerves of the senses—diseases of the sympathetic nerve—and tetanus. To these we shall advert in our next Number.

We now proceed to the second work upon our list—a paper on the Reflex Function of the Medulla Spinalis and Oblongata, by Dr. Marshall Hall. The Philosophical Transactions of this Spring have furnished two or three important articles connected with medical science—one of which is that before us. It is appropriately dedicated to Mr. Brodie, whose labours in physiology and surgery generally have laid the profession under deep obligations.

In this memoir, Dr. H. proposes to give an account of a principle of action in the animal economy, which, he thinks, has not hitherto been distinguished with sufficient precision from the other vital animal functions. This principle is peculiarly connected with the medulla oblongata and spinalis. It is well known that M. Legallois considered the spinal marrow as a whole, and in distinct portions, to be the exclusive source of sensation and voluntary motion. Cruveilhier, on the other hand, denounces this view, as one of the errors of modern physiology. The reasonings of the latter author are thought to be much too exclusive by Dr. Hall. On the more recent occasion of a report on the work of M. Flourens, the Secretary of the Institute remarks, that "the author concludes that sensation and contraction appertain no more to the spinal marrow than to the nerves; and this conclusion is just, as far as unmutilated animals are concerned. It is, however, a question whether the rule will apply to those animals who have been decapitated, and which, in certain classes, are far from losing their animal functions immediately on privation of the brain."

"It was a singular mistake (says Dr. Hall) to imagine that the same conclusion could be just in reference to the entire animal, which was incorrect in reference to the animal deprived of its encephalon. The facts are these: in the entire animal, sensation and voluntary motion, functions of the cerebrum, combine with the functions of the medulla oblongata and medulla spinalis, and may therefore render it difficult or impossible to determine those which are peculiar to each; if, in an animal deprived of the brain, the spinal marrow, or the nerves

supplying the muscles, be stimulated, those muscles, whether voluntary or respiratory, are equally thrown into contraction, and, it may be added, equally in the complete and in the mutilated animal; and, in the case of the nerves, equally in limbs connected with and detached from the spinal marrow.

The operation of all these various causes of muscular contraction may be designated *centric*, as taking place *at*, or at least in a direction *from*, central parts of the nervous system. But there is another function the phenomena of which are of a totally different order and obey totally different laws, being excited by causes in a situation which is *eccentric* in the nervous system, that is, distant from the nervous centres. This mode of action has not, I think, been hitherto distinctly understood by physiologists. It is involved in the question which Baron CUVIER considers as so full of interest, and is that treated of in the following pages.

Many of the phenomena of this principle of action, as they occur in the limbs, have certainly been observed. But, in the first place, this function is by no means confined to the limbs; for, whilst it imparts to each muscle its appropriate tone, and to each system of muscles its appropriate equilibrium or balance, it performs the still more important office of presiding over the orifices and terminations of each of the internal canals in the animal economy, giving to them their due form and action; and, in the second place, in the instances in which the phenomena of this function have been noticed, they have been confounded, as I have stated, with those of sensation and volition; or, if they have been distinguished from these, they have been too indefinitely denominated instinctive, or automatic. I have been compelled, therefore, to adopt some new designation for them, and I shall now give the reasons for my choice of that which is given in the title of this paper.

This property is characterized by being *excited* in its action, and *reflex* in its course: in every instance in which it is exerted, an impression made upon the extremities of certain nerves is conveyed to the medulla oblongata or the medulla spinalis, and is reflected along other nerves to parts adjacent to, or remote from, that which has received the impression.

It is by this reflex character that the function to which I have alluded is to be distinguished from every other. There are, in the animal economy, four modes of muscular action, of muscular contraction. The *first* is that designated *voluntary:* volition, originating in the cerebrum, and spontaneous in its acts, extends its influence along the spinal marrow and the motor nerves, in a *direct line*, to the voluntary muscles. The *second* is that of the *respiration:* like volition, the motive influence, in respiration passes in a *direct line* from one point of the nervous system to certain muscles; but as voluntary motion seems to originate in the cerebrum, so the respiratory motions originate in the medulla oblongata: like the voluntary motions, the motions of respiration are spontaneous; they continue, at least, after the eighth pair of nerves has been divided. The *third* kind of muscular action in the animal economy is that termed *involuntary:* it depends upon the principle of irritability, and requires the *immediate* application of a stimulus to the nervo-muscular fibre itself. These three kinds of muscular motion are well known to physiologists; and I believe they are all which have been hitherto pointed out. There is, however, a *fourth*, which subsists, in part, after the voluntary and respiratory motions have ceased, by the removal of the cerebrum and medulla oblongata, and which is attached to the medulla spinalis, ceasing itself when this is removed, and leaving the irritability undiminished. In this kind of muscular motion, the motive influence does not originate in any central part of the nervous system, but at a distance from that centre: it is neither spontaneous in its action, nor direct in its course; it is, on the contrary, *excited* by the application of appropriate stimuli, which are not, however, applied immediately to the muscular or nervo-muscular fibre, but to certain membranous parts, whence the impression is carried to the medulla,

reflected, and reconducted to the part impressed, or conducted to a part remote from it, in which muscular contraction is effected." 638.

Dr. Hall proceeds to observe, that the first three modes of muscular action are known only by actual movements or muscular contractions. But the reflex function exists as a continuous muscular action, as a power presiding over organs not actually in a state of motion, preserving in some, as the glottis, an open,* in others, as the sphincters, a closed form, and in the limbs, a due degree of equilibrium, or balanced muscular action.

The critic may hint, that the instances adduced of this new kind of muscular action—of this "reflex function," are not so satisfactory as could be wished. The sphincter of the eye, or of the mouth, does not differ in kind from the sphincter of the anus. Yet the former are supplied by a nerve of voluntary motion—the portio dura (as the latter is by branches of the sacral spinal nerve)—are themselves susceptible of voluntary motion and contraction—and probably differ in no essential respect, except in anatomical disposition, from other voluntary muscles. At all events, Dr. Hall has not proved that they do so. It has long been known, that the ordinary condition of a muscle is intermediate between its extreme degrees of contraction and of relaxation. This is proved by its contractility on one hand, and its extension, by antagonizing muscles, on the other. If, then, Dr. Hall terms this condition the consequence of a "reflex function," it might be plausibly urged that he re-christens a familiar object.

"The three kinds of muscular motion hitherto known may be distinguished in another way. The muscles of voluntary motion and of respiration may be excited by stimulating the nerves which supply them, in any part of their course, whether at their source, as a part of the medulla oblongata or medulla spinalis, or exterior to the spinal canal: the muscles of involuntary motion are chiefly excited by the actual contact of stimuli. In the case of the reflex function alone, the muscles are excited by a stimulus acting mediately and indirectly in a curved and reflex course, along superficial sub-cutaneous or sub-mucous nerves proceeding to the medulla, and muscular nerves proceeding from the medulla. The first three of these causes of muscular motion may act on detached limbs or muscles. The last requires the connexion with the medulla to be preserved entire." 639.

It will be noticed that our author lays down a distinction between the nerves of respiration and those which are governed by this reflex function, say the sphincters. Again, the critic might suggest that, when narrowly examined, the distinction is not very easily drawn. The sphincter ani, for example, can be voluntarily contracted—so can the diaphragm: irritation of parts with which the sphincter is associated in function, will occasion involuntary contractions of the latter—the same law holds good with the diaphragm; pressure on the brain, or on the spinal marrow above the part which gives rise to the nerves that supply it, will cause palsy of the sphincter—so it will of the diaphragm—the sphincter ani maintains an ordinary state, intermediate between its extreme contractions which are voluntary or involuntary, and extreme dilatation which is only mechanical—the same may be said of the diaphragm, the only difference being that the ordinary state of the latter is motion, of the former, rest.

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* See Legallois, Op. cit. p. 176—178.

Let us meet the question as openly as possible, and expose it fairly to the light of day. We will take for the subject of our observations the sphincter of the eyelids (orbicularis oculi). We remark first of all, that it maintains like all other muscles, an ordinary condition, intermediate between the extremes of contraction and dilatation. The physiological world was sufficiently aware of this fact, and attributed it partly to the influence of the nerves supplying the muscle, partly to the properties of the muscular tissue itself. In assigning this as a consequence of the reflex function, we do not see that Dr. Hall has made much advance in the process of explanation. In the second place, we perceive that the sphincter is under the influence of the will. Now this must be the effect of *a* reflex function, though not of *the* reflex function. A frightful image is presented to the eye, an impression is made upon the brain, and the latter wills that the eye be closed. In the third place, the eyelids are seen to close convulsively when an irritating substance is applied to the surface of the cornea. This is commonly believed to be owing to an impression made upon the fifth nerve, transmitted to its origin, and giving rise to reflected action of the seventh, or at least of the muscles supplied by it. Is this Dr. Hall's reflex function? If so, it is sufficiently familiar; if not, in what does it differ from it? Dr. Hall may rejoin, that in this instance actual sensation is produced. But that is mere accident. If the fifth had not been a nerve of sensation, if the kind of irritation had not given rise to sensation at all, the mode of excited action would still have been the same. In the fourth place, we see contractions of the sphincter of the eye forming one of an associated set of actions, as in coughing or in sneezing. In this instance an impression is made upon the fifth in Schneider's membrane, or on the eight in the larynx, and contraction of many different muscles, supplied by various motor nerves ensues. No one has ever doubted that this was the result of a reflex function, though no one, for aught we know, has employed precisely the same designation for it.

We do not wish to push the argument further. We may possibly, very probably, under-estimate the ingenious views of Dr. Hall. Yet so far as our abilities enable us to comprehend their bearing, they do little more than present an old friend with a fresh face, rouged, perhaps, a little, and his whiskers dyed, but retaining the features and expression which have been familiar.

To return to our able author. He cites an instance illustrative of the distinctions between irritability and the reflex function.

"It is important," says he, "to shew still more distinctly than I have done, the distinction between the movements arising from the reflex function of the medulla oblongata and medulla spinalis, and those arising from irritability itself. If the glottis of an animal be touched, there is an immediate contraction. If the heart be touched, the same phenomenon is observed. What is the difference between the excited movements of these two organs? If the brain be removed, the same events will take place. If the medulla oblongata be removed, the contractions of the stimulated larynx suddenly cease, whilst those of the heart continue as before. The difference consists then, in the presence of the medulla oblongata, which is essential to the contractions of the larynx, but of which those of the heart are entirely independent. The influence of the stimulus upon the heart is immediate. That of a stimulus applied to the larynx must pass to the medulla oblongata, and be reflected upon the part moved." 643.

The sum of the "reflex function" may, perhaps, be comprised in the direct expression—that the action of those muscles supplied by cerebral or spinal nerves, depends on the preservation of their connexion with the portions of the cerebrum, or the medulla, from which those nerves originate, or to which, to use another term, they are referred.

The preservation of this property by segments of the cerebro-spinal nervous system, in the lower animals, is well exemplified by the following experiment of Dr. Hall.

"On another occasion, having removed the head of a frog, I divided the spine between the third and fourth vertebræ, and separated the upper portion of the animal from the lower. There were then the head, the anterior extremities, and the posterior extremities, with their corresponding portions of medulla, as three distinct parts of an animal. Each preserved the reflex function. On touching an eye, it was retracted, and the eyelids closed, whilst similar phenomena were observed simultaneously in the other eye. On removing the medulla, these phenomena ceased. On pinching the toe of one of the anterior extremities, the limb and the opposite limb equally moved. On removing the spinal marrow, this phenomenon also ceased. Precisely similar effects were observed in regard to the posterior extremities." 646.

Dr. Hall quotes some very interesting cases of anencephalous fœtus. The existence of motions independent of the brain and of volition, and dependent on the medulla, is well shown by the details of those authentic facts. We may cite one related by M. Lallemand.

"J'ai vu," says he "il y a quatre ans, à l'Hôtel-Dieu, un fœtus anencéphale, à terme, ou à peu près, qui vécut trois jours. Pendant tout ce temps il poussa des cris assez forts, exerça des mouvemens de succion toutes les fois, qu'il sentit quelque chose entre ses lèvres; mais on fut obligé de le nourrir avec du lait et de l'eau sucrée, parce qu'aucune nourrice ne voulait lui donner le sein. Il exécutait des mouvemens asses étundus des membres thoraciques et abdominaux. Quand on plaçait un corps étranger dans ses mains, il fléchissait les doigts comme pour le saisir; mais en général tous ses mouvemens avaient moins d'énergie que ceux d'un fœtus de même âge.

Le cerveau et le cervelet manquaient entièrement: il ne restait à la base du crâne que la moëlle allongé at la protubérance annulaire, avec l'origine des nerfs pneumo-gastrique, trifacial et optique. Le tout était recouvert par les débris des os du crâne, des méninges et de la peau." 648.

It must be obvious that the muscular motions in this instance must have been the result of impressions transmitted from the nerves to the medulla, and of actions impressed by the medulla on the muscles. Volition, in the strict sense, there could not have been, for the very satisfactory reason—that nothing existed to will.

Dr. Hall proceeds to show that the reflex function admits of exaltation as in tetanus. In a frog made tetanic, and divided into three parts, the spasm continued to be produced in each by the application of the stimulants.

The last division of the paper of our able author is devoted to those pathological facts which illustrate the reflex function. He thinks that the diseases of the nervous system may be divided into those of centric and eccentric origin. The accidents of dentition form a good instance of excitement of the reflex function. Epilepsy, asthma, chorea, tetanus, and other maladies, are cited as affording instances of morbid conditions of the reflex function.

Before we close this notice we think it only due to Dr. Hall, to lay before our readers a short summary of his inferences, which he introduces near the termination of his paper.

"Physiologists have hitherto enumerated only *three* sources or principles of muscular action,—volition, the motive influence of respiration, and irritability.

There is however, a *fourth* source of muscular motion distinct from any of these, though not hitherto distinguished, to which I have ventured to give the designation of *the reflex*.

Volition and the motive influence of respiration are direct in their course, and spontaneous in their action; the former proceeding from the cerebrum, the latter from the medulla oblongata.

The movements of irritability are the result of the immediate application of a stimulus to the nervo-muscular fibre itself.

The reflex function is different from any of these:

It remains attached to the medulla spinalis, when the cerebrum and the medulla oblongata are removed: it is not direct like volition, or the motive power of respiration.

Its seat is the medulla generally: it ceases when the medulla is removed, leaving the irritability entire: it is not excited immediately, like the movements of irritability, but mediately, in a reflex course, through the medulla, from the part stimulated to the part moved.

In a state of health, the reflex function presides over the orifices and terminations of the internal canals, such as the glottis and the sphincters, preserving the former open, the latter closed; and it maintains the due tone of each muscle, and the due equilibrium of each system of muscles.

When excited, it gives origin to the movements observed in deglutition, or vomiting, sneezing, tenesmus, &c. The fingers passed into the pharynx of a dog, through an incission made between the thyroid cartilage and the os hyoides, excites the act of deglution; passed over the root of the tongue or the fauces, it excites the associated actions of the muscles of the larynx and of expiration, which constitute the act of vomiting.

When morbidly augmented, it constitutes certain forms of disease, as tetanus, hydrophobia, certain forms of tremor, paralysis agitans, chorea, stammering, &c.; when diminished, it induces those forms of tremor observed when the vital powers are enfeebled.

When otherwise morbid, it occasions other forms of disease, as the convulsion, the croup-like respiration, the affection of the sphincters, observed in dentition, the various effects of intestinal irritation, &c.

The effects of the excited reflex function are sometimes observed in a part *near* that irritated, as in the eyelids in winking, in the glottis on inhaling a drop of water or particle of food, in the sphincter ani in dysentery, &c.; sometimes in parts *remote*, as in the irritation of teething when this induces strabismus, convulsion, the croup-like respiration, relaxed sphincters, &c. 659.

We will only add, that Dr. Hall has pointed out much more clearly than has hitherto been done the continuance of certain actions in voluntary muscles after volition is removed, and their dependence on that portion of the nervous centre with which they are immediately connected through the medium of their nerves. We cordially bear testimony to that ingenious spirit which has elucidated many questions in pathology and physiology, and we trust that Dr. Hall will continue to favour the profession with the prosecution of his inquiries, and the communication of their results.

We now arrive at the work of Mr. Earle, a relation of the gentleman who occupies with credit the situation of surgeon to Bartholomew's Hospital. It is termed a New Exposition of the Functions of the Nerves—a title calculated to arrest attention, and displaying the confidence and boldness of its author.

He appears to anticipate opposition to his views, but apparently possessed of an intellect superior to his age, he rises, like light hydro-carbon through the muddy waters that surround him, and looks for appreciation and for fame to posterity. It is pleasant to observe this philosophical reliance on the taste and the judgment of our children, and we trust they will answer the reasonable expectations entertained of them.

"If the discovery of Harvey," says Mr. Earle, "admitting of such clear and satisfactory demonstration, met with violent opponents and a tardy acquiescence, in inducing facts which are addressed to the eye of reason only, I cannot expect to escape that share of prejudice and opposition which has always attended the announcement of novelty; nor that the opinions derived from the facts which I have brought forward will be readily allowed to be just; for, as it has been well observed by an old writer, 'before truth in its silent or disputed march has roused the attention of the indolent, converted the supercilious, subdued the interested and obstinate, and reached the ears of all, an age has passed away.'" 3.

The calm observer of the actions and passions of mankind has frequent opportunities of remarking the benevolent arrangements of Providence. Sources of consolation eternally spring up in circumstances the most unpromising, amidst prospects the most cheerless. The dying criminal, beneath the tree, looks back upon his crimes with searcely a shudder, and almost ventures to anticipate hereafter the glorious fruit of his few hours' trust in his Redeemer. The literary world enjoys its revelation. Its great in guilt, and its poor in spirit, are soothed with the hope of a future state, when penitence may save, or suffering beatify them. The stripes of the critical centurion will have been effaced, the mockery of the insolent rabble will be hushed.

Could the gentle Harvey look down from his immortal habitation, he would smile with satisfaction to remark how many persecuted authors his treatment and his triumph have been the means of pacifying and of comforting. Yet a sigh might possibly escape him, on reflecting how few had their just aspirations gratified, or received from posterity the recompence that they deserved. He would find on examination of the rolls in the record office of fame, that of millions who received contemporary slander, scarce one was crowned with posthumous glory. He would probably own, that the possession of the former afforded an imperfect guarantee for the acquisition of the latter. The scoffer might hint to the ardent author the possibility of the fate of that still fameless poet; to be remembered when Homer and Virgil are forgotten, but not before.

Should our want of judgment, our indolence, or our obstinacy induce us to demur to the reasonings of Mr. Earle, and lead us to contemn or undervalues his discoveries, we possess the pleasing reflection, that he looks to a future and a better æra, for a more correct and more favourable estimate. That sympathetic powder will readily dry up the critic's wound.

The earliest philosophers found no difficulty in determining that the causes

of things are buried in obscurity. Philosophers, ancient and modern, would be puzzled to determine the cause of the present book. Know, reader, it was the frequency of hydrophobia in the Spring and Autumn of 1830. The chain of causation is complete and obvious.

Averting our eyes from a painful spectacle displayed in the first twenty-four pages of the volume (we allude to the immolation of Dr. Wilson Philip), we arrive at the second chapter, devoted to the new exposition of the nature of nervous influence, and the classification of the nerves. Curiosity is naturally roused to learn the great truths, which, however neglected in this age, may constitute the wealth of succeding centuries.

"I shall now proceed to state the grounds upon which I consider myself justified in believing that a something, which has been called Nervous Influence, is constantly emanating from the brain; and then by classifying the several sorts of nerves according to the functions which each performs, to explain the mode in which this single power is made use of for the accomplishment of every purpose relating to the economy of animal life." 25.

It must be owned that this idea does not appear, on a superficial examination, to be new, but closely to resemble an old and an exploded theory. But Mr. Earle proceeds to remark, that many deny the existence of any fluid emanating from the brain and passing along the nerves, on account of its being invisible. He refers to the electric organs of the torpedo, as affording a proof of the justice of his theory. After exertion of those organs, the electric power appears to be exhausted,and requires rest for its renewal. Yet rest alone seems inadequate, in Mr. Earle's eyes, to repair the electric power, which he therefore supposes to be renovated in the brain. We confess that we think Mr. Earle has travelled farther than he need have done. The nerves of the senses, in all animals, are fatigued by long continued exercise, and we see no difference between the two cases. One proves as much and as little as the other. Mr. Earle, however, shouts—Io triumphe!

"If there are any who still deny the possibility of there being a fluid which comes from the brain and passes along the nerves, because it cannot be rendered evident to the sight, of them it may be demanded, what difference does the eye perceive between oxygen and nitrogen gas, or between hydrogen and carbonic acid? Neither of these gases have the same properties, though they are all equally fluid and invisible. Away then with the puerile objection of those who ask, who ever saw nervous influence? Is the caloric visible in the mercury of a thermometer, when its column stands at the boiling point?" 29.

No doubt the analogies are forcible, but we do not quite perceive their connexion with the matter. As it is not our object to argue much with Mr. Earle, we shall do little more than lay his views before our readers.

He observes that it is generally admitted, that the influence of the brain is necessary to secretion, and, by a piece of logical harlequinade, he immediately concludes that this secernent power resides in the whole brain, while volition and sensation belong only to parts of it. This pantomimic leap is dexterous, and should be shewn.

"I consider this secernent function to be the result of an action of the whole brain for two reasons, first, because it is proved by Dr. Philip* that the action

* Experimental Inquiry into the Laws of the Vital Functions.

of the heart cannot be affected by a stimulant, however intense, if it be applied to a small part only, but the motion of this organ is immediately increased when a stimulant is applied to any part of the brain, provided the extent of the surface stimulated is considerable; secondly, the size of the brain is so small as compared with that of the body, that I think it is scarcely possible to be supposed that an action of a part only of this organ could be equal to the maintenance of all the vital functions. While the secernent function which maintains the health of the body is constant and uniform, and belongs the whole brain, we have every reason to believe that volition and sensation which provide for its convenience and welfare, belong only to particular parts of it, and are not always engaged." 32.

We think the above a fair specimen of our author's style of reasoning, which appears to consist in a very liberal employment of that useful mode of argument —the petitio principii. He proceeds to state that, as the brain is constantly acting, and the nerves are the only means by which that action can be made available, the manner in which the latter perform their office becomes a fit subject of inquiry. On this head, experiments, of course, are necessary. But the results obtained from the division of a nerve containing many filaments are inconclusive. Thus, says Mr. Earl, the division of the eighth pair of nerves in the neck is followed by a loss of the secreting power in the stomach; but that does not inform us of the mode in which the blood had acted upon the blood in the vessels of the stomach, to produce secretion :—a conclusion which, we fancy, will be readily admitted. In order to arrive at such desirable information as that pointed out by Mr. Earle, it is necessary, says he, to inquire how many sorts of filaments nerves are composed of, and then to ascertain what are their separate modes of action. We shall feel great pleasure, and possibly some surprise, if Mr. E. is enabled to do this.

After noticing Dr. Philip's classification of the nerves, and pointing out its defects and incongruities, Mr. Earle proposes the following as the principle which guides his own.

"I venture to propose that their different functions, according to what is at present known of them, should form the basis of their classification, and that they should be considered, first, according to the functions which each performs independently of the others, and secondly, according to their natural arrangement and the functions which they perform in combination. I do not propose this natural classification of the nerves merely on account of its novelty, but on account of the real advantages which it possesses. It will be found to render that which has hitherto been enveloped in the darkest obscurity at once clear and satisfactory; it will also introduce a degree of precision hitherto unknown in physiology, and thus remove the discredit into which this branch of medical science has fallen." 38.

We must now introduce a rather long quotation, in order to exhibit our author's arrangement in his own words. We should mention that the Italics and the capitals are his property, not our interpolations.

"In unison with my plan of arranging the nerves according to their separate functions, I propose, that the term cerebral nerve, instead of as hitherto being applied to every one which passes through an aperture in the skull, should be restricted to the olfactory, ophthalmic, and auditory nerves, on account of their being more particularly connected with the intellectual functions which are now generally regarded by physiologists as performed in some way or other by the brain, and from their being the most simple in their function, which is only that of transmitting impressions from their extremities to the brain, and from their filaments not being intermingled with those of any other nerve, that they should form the FIRST CLASS, and be considered as the only purely *cerebral* nerves.

That the SECOND CLASS should comprehend every nerve by means of which muscles are subjected to the influence of volition, these are the anterior nerves,

and belong to the anterior columns of the spinal marrow. As this division embraces the third, the fourth, the anterior root of the fifth, the sixth, the portio dura of the seventh, and the ninth nerves, it will be seen that I have partially adopted the classification of Sir C. Bell, and, consequently, consider all the medullary fibres below the first formation of the crura cerebri, as comprised under the term Anterior Columns of the spinal marrow, without regard to the circumstance of those fibres being encompassed at a particular part by other bands of medullary substance, termed pons varolii; or separated by other bodies which have been termed corpora oblivaria.

That the THIRD CLASS should comprehend every nerve belonging to the Posterior Columns of the spinal marrow; thus including the posterior root of the fifth, the glosso-pharyngeal the pneumogastric and Spinal Accessory nerves, all of which, with the exception of the last, transmit impressions from their extremities to the brain, and have protuberances upon them just before their respective junctions with the posterior columns of the spinal marrow; by the term Posterior Columns is signified their whole extent as far as the terminations of the restiform bodies in the posterior peduncles of the cerebellum. The ganglions on these posterior nerves will, in the course of these observations, always be distinguished from those of the sympathetic by the term posterior ganglions, for the sake of avoiding any misunderstanding.

Lastly, that the FOURTH CLASS should comprehend every nerve proceeding from the sympathetic ganglions.

Every part to which branches of these nerves are distributed, whether its structure is muscular as that of the heart, or fibrous as that of the arteries and iris, has a power of motion altogether independent of any influence that the will can exercise.

Such is the classification which I consider the distinct nature of the nerves obviously points out, and which I think is more particularly warranted by the well-known fact that nervous filaments, however intermingled, whether united with others near to the brain and spinal marrow, or at a distance from them, never change their character. I must particularly beg the reader's attention to this arrangement, because it will enable him to understand more readily the observations I shall have to make respecting the functions of the nerves, and the effects resulting from their combination.

These four classes of nerves are found distributed in four different orders.

The First Class, or purely cerebral nerves, are the most simple in their arrangement, because their filaments are never intermingled with those of any other nerve. These therefore should be considered as forming the FIRST ORDER OF DISTRIBUTION.

The next most simple arrangement is found in those nerves which are formed by the union of anterior and posterior filaments, or *the second and third classes.* These therefore should form the SECOND ORDER. These nerves supply the bones, muscles, &c. of the limbs and a great part of the trunk of the body; and those parts, whose structure is such as to allow of motion, can at any time be called into action by the will.

The next variation is found in the union of posterior filaments with those belonging to sympathetic ganglions, or the *third and fourth classes.* These, therefore should form the THIRD ORDER. All parts supplied by these nerves, whose structure is such as to allow of motion, such as the heart, arteries, intestines, and iris, are observed to be in constant action from birth till death, without becoming exhausted or fatigued and without requiring rest. The action of these parts cannot be affected by the will.

The last variation is found in those nerves which are formed by the union of anterior, posterior and sympathetic filaments, *or second, third, and fourth classes.* These, therefore, should form the FOURTH ORDER. The muscles supplied by filaments arranged in this order are observed to have a power of supporting constant motion without fatigue, but they differ from those supplied by the third,

order in being always obedient to the commands of the will. The nerves and function of the diaphragm afford an example of this variety." 43.

A critic, as severe towards Mr. Earle as he has been to Dr. Philip, would readily enumerate some striking defects in the foregoing classification. A practical physiologist might contemn the whole—might demand with a sneer, to what it amounted—and sarcastically observe, that it resembled the dispute between the Babylonian sects, respecting the necessity of putting the right or the left foot foremost on entering the temple of Baal. But we waive such criticism and disclaim such censoriousness, contenting ourselves with placing, as far as our cripple space will permit, the peculiar views of Mr. Earle before the public.

Mr. Earle would seem to have discovered, with little difficulty, the use of the spinal accessory nerve. As this has perplexed, if it has not baffled, very able physiologists, the facility with which it is determined by our author affords a striking instance of the value of his views.

It is by means of this nerve that the trapezius and mastoid muscles are enabled to assist in supporting and moving the weight of the head for a great length of time without becoming fatigued." 45.

We formerly hinted at the doctrine of a circulation of the nervous system entertained by Mr. Earle. The course of that circulation is thus laid down by him.

"It now only remains that I should state the precise manner in which I consider the influence of the brain, or more properly the CEREBRAL INFLUENCE, because it proceeds from the cerebrum, and not from the cerebellum, is applied by the nerves in order to effect secretion, and to supply the voluntary and involuntary muscles with their power of contraction. The anterior and posterior nerves, or second and third classes, bear the same opposite relation to each other as has been already noticed with regard to volition and sensation, the one being active, the other passive or recipient. The action of the anterior nerves is always from the cerebrum towards their extremities, that of the posterior is exactly the reverse, being from their extremities towards the cerebellum. There is no instance, in the whole body of an anterior nerve not being joined to a posterior nerve. This arrangement appears to be for the purpose of allowing the cerebral influence, which flows along the anterior, to return in a reflux direction along the posterior nerves and posterior columns of the spinal marrow to the cerebellum; thus completing a circulation as perfect as that which is carried on by the arteries and veins, and which I venture to call the CIRCULATION of the NERVOUS SYSTEM." 51.

This nervous circulation is productive of great consequence, for by it the "cerebral influence" regulates secretion, in the following simple and satisfatory manner.

"It appears to me that the passage of the cerebral influence, from the extremity of an anterior to that of a posterior nerve, offers a much stronger analogy to galvanism than any which has been pointed out by Dr. Philip, though I am still far from thinking it sufficient to establish their identity. It is to this passage of the cerebral influence, from the extremity of one nerve to that of another, analogous to the passing of galvanism from the positive to the negative pole, that I am inclined to attribute the maintenance of the blood in its fluid state, the evolution of caloric, the secretion of synovia in the joints, and bursæ, and, in fact, the support of the whole secernent function upon which the deposition of new, and the removal of old parts depends. It is farther to be observed, that as this circulation is constantly going on, there is always a certain quantity of cerebral influence in the anterior nerves, consequently all the muscles to which these nerves are distributed must always act in obedience to the will, simply because volition can effect their prime origins, which are in the cerebrum." 52]

As none can resist the force of truths so weighty and of demonstration so complete, it would be idle in us to offer any observations in opposition to them, or in confirmation of them. We have only to remark that, as novelty and ingenuity are displayed in every page, and not only new views but a new mode of reasoning, new, at least, since induction became fashionable, are presented, we find that it is hopeless to attempt a consistent account of this work of Mr. Earle's. We therefore fear we must content ourselves with one more quotation, which, brief as it may be, contains the nucleus of more originality than many ponderous volumes. It is difficult to avoid the expression of astonishment at the depth of penetration and soundness of judgment displayed by the able author. It is impossible to repress a feeling of exultation that such discoveries, however ridiculed they may be by fools, will reflect a glory, in future times, upon the present century.

"In this simple arrangement, however, there is no provision for the supply of the viscera, but as their secernent and motor function equally require the presence of cerebral influence, there must be some contrivance whereby it may be supplied. For the accomplishment of this object, every posterior nerve is provided with a ganglion, (which as they do not interfere with the transmission of external impressions, evidently perform some office which has not hitherto been understood,) in order that part of the current which is returning in a reflux direction along the posterior nerves, upon which alone these protuberances are found, may pass at regular intervals into the sympathetic ganglions. How apparent the object of the wandering course of the pneumogastric nerve (which is entirely composed of posterior filaments at its termination, or what has hitherto been considered its origin,) now becomes! The secernent function of the viscera must be performed in the same way as in the limbs, and an opportunity is thus afforded by the pneumogastric nerves, for the passage of the same fluid from the extremities of the nerves coming from sympathetic ganglions, to the extremities of nerves of an opposite character, at once providing for the whole secernent function of the viscera; the differences in the various secretions not resulting, except in some degree perhaps in the liver, from any difference in the blood itself or in the fluid which acts upon it, but from the peculiarity of the structure of each secreting organ. I have no words to express my admiration of the beauty of this arrangement, whereby the motion of all parts applied by the third order of nerves is rendered both involuntary and unceasing; involuntary because the influence of the will cannot possibly extend beyond the extremities of the anterior nerves, and unceasing because that which bestows the power of motion is supplied in an uninterrupted stream. Are we now able to explain the reason why the heart has nerves? and why every variety of mental emotion has an effect upon secretion in proportion to its intensity?" 53.

"How clear is the light which emanates from the mind of the man of genius. We may now explain or comprehend the reason why the heart has nerves, a great truth which was heretofore utterly incomprehensible—and why we cannot make our viscera contract like our limbs. How beautiful is the system of the ganglia—how wonderful is its discovery. If we lay aside the pen, it is not because it cannot be worthily wielded in spreading the knowledge of the labours of Mr. Earle—it is not because a feeling of fatigue may provoke us to descend from flights of imagination so exalted, or the painful pursuit of subtleties so recondite—it is not because we are disgusted with the attempt at exposing endless fallacies, or disproving assumptions which make no pretence to proof—it is not for such reasons which uncharitable persons might deem sufficient—but it is because we feel how impossible it would be, with our limited space, to do justice to the fertile fancy and the new philosophy of Mr. Earle, and because we would wish those who may desire to be well acquainted with its contents to study the volume themselves. We can only say that singular as was its origin, a hydrophobia panic, it is worthy of a source of such rational interest.

Periscope;

OR,

CIRCUMSPECTIVE REVIEW.

"Ore trahit quodcunque potest, atque addit acervo."

I.

SPIRIT OF THE ENGLISH PERIODICALS, AND NOTICES OF ENGLISH MEDICAL LITERATURE.

A new Synopsis of Nosology, &c. By Dr. G. H. Weatherhead, Small Octavo, 1834.

We have been informed on good authority, that Dr. Weatherhead spent many hours of the day for several years in constructing this system of nosology. We hope the time was spent as pleasantly and profitably as the hours, days, and months passed in traversing France, Italy, and Switzerland, with his knapsack on his back, pursuing his "Pedestrian Tour." We candidly confess our opinion, that in these nosological labours of Dr. W. the workmanship surpasses the work, and that the labourer, though worthy of his hire, will be little likely to receive his reward. The series of nosological systems, from Plater to John Mason Good, each one pointing out the errors and absurdities of its predecessors, shows the unstable basis on which nosology rests. It was all very well for our first parent to classify and name the various animals that passed before him: but it is a very different matter for the physician to classify and arrange diseases that change their forms, symptoms, and even their nature, as rapidly as Proteus. Inflammation to-day, is often dropsy to-morrow—and Arthritis in the morning may take the name of Pericarditis in the evening! Dr. Good laughed at Dr. Cullen for arranging itch and broken bones together—while Dr. Weatherhead has his fling at Good for classing toothache with prolapsus ani. We do not think it would be very difficult to point out some incongruities even in Dr. W.'s nosology. Thus, in the classification of catalepsy with varicose veins, we confess that we have puzzled our imaginations a good deal to discover the link by which these two diseases are connected. Many such strange *associations* might be pointed out, and some not less curious *dissociations*. Thus neuralgia is designated as *idiopathic*, when the seat of pain is in the face or heel; but *sympathetic*, when in the nerves spread over the pericranium. Nevertheless we believe that the principle on which our author constructs his system is as good, if not better than that which guided either Cullen or Good.

"I hope to make obvious, in the sequel, the propriety, as well as utility, of founding nosology on the properties of the tissues, as far as our knowledge of them goes: the similarity of their several symptoms when diseased, the resemblance in their results or effects, and, above all, the sameness of the principle requisite to be pursued in their treatment, in whatever part of the body the tissue may be situated, all demonstrate the advantages derivable from a classification taking this principle for its foundation.

"On referring to systematic, and other writers, on diseases, we have recurring in almost every page occasion for surprise at the Protean form that the symptoms of the same disease are described as assuming—now present, now absent, sometimes acute, at other times obtuse; and if we come to examine

how this happens, we shall find that it is attributable, in almost every instance, to the morbid action not being seated in the same tissue. This is more particularly observable in the diseases of compound organs; but in all these cases, on properly locating the seat of the morbid action, all contrariety and contradiction in the symptomatology is got rid of at once. It is true the morbid action set up in one tissue will, and does frequently, extend to a different tissue immediately contiguous, and then the symptoms peculiar to each become mixed; but, even in this case, a knowledge of these peculiarities assists rather than confounds the correctness of our judgment as to the nature and extent of the disease; for it will always be found, that the assemblage of symptoms present was not of simultaneous appearance, but that a part of them was superinduced on the other; thus showing the progression of the diseased action by extension or sympathy."

Dr. W. has classified the diseases of the human body under four principal heads. These form his classes—namely, the PHLOGOTICI, or pure inflammatory diseases—the HÆMAPHARMATICI, or those diseases which originate from a miasm or poison entering the blood, and tainting it—thirdly, the NEUROTICI, or diseases of the nervous system—and lastly, VITIA, comprising all accidental disfigurations, new morbid formations, extraneous lodgments, and congenital malformations. Upon each of these classes Dr. W. makes many pertinent observations—more especially on the *sequelæ* of diseases, in arranging which, nosologists have not drawn the proper distinction between them and their primary causes. Each of these sequelæ or results will find a place (Dr. W. thinks) in this new synopsis.

"But it may be well to elucidate my meaning more distinctly, by exemplifying it. Let us take subacute hepatitis as the primary disease: a common morbid consequence of this is the interstitial deposition of coagulable lymph into its structure, which, on becoming organised, constitutes scirrhus of the liver. This is a sequela of the primary morbid action, but it is not its ultimate result, as we shall see by pursuing the subject a little further. Scirrhosity gives a preternatural solidity and induration to the liver: this naturally presents a constant and powerful obstruction to the free return of the venous blood from several of the abdominal viscera; a mechanical hæmostasis or congestion of necessity takes place in all the branches of the vena porta, which, in order to relieve themselves of the engorgement, force into the exhalants opening into the cavity of the abdomen an undue portion of serosity greater than the absorbents can remove, the morbid consequence of which is ascites. Here, then, we have two consecutive morbid sequelæ, each constituting a specific disease, the one being the subsequelæ of the other, besides the primary disease; indeed, it not unfrequently happens, that all these three morbid states shall simultaneously coexist. The following, therefore presents an illustrative diagram of the subsequent synoptical arrangements:—

Species 1. HEPATITIS.
Variety. a. Sub-acuta.
Sequela. *a*. Scirrhus.
Subsequelæ. a. Ascites.
b. Hæmorrhœa intestinalis.
a. Recti.

The reader will further perceive b. *Hæmorrhœa intestinalis* and *a*. *Recti* superadded, by which it is intended to indicate, that sometimes, instead of dropsy being the sequela, as explained above, intestinal hæmorrhœa shall be the morbid consequence of the sanguineous engorgement; and the word "Recti" is placed to show when this proceeds from a particular part of the intestines, that is, from the hæmorrhoidal veins."

We acknowledge that this plan, if it could be followed out correctly in all its details, would be much more natural and practically useful than those artificial systems hitherto adopted by nosologists. But immense difficulties are strewed in the path of the nosographer, in our present state of knowledge, since the succession of diseases

is very obscurely marked by their symptoms or external phenomena.

Nosology may be considered the grammar of medicine. It is useful to the teacher and to the pupil, as facilitating the communication and the reception of medical knowledge. When the practitioner has launched his bark for a few years, he loses sight of his nosology, in a great measure—or rather, he forms a practical one of his own, by which he steers through the quicksands and straits of his professional voyage of life. To our medical grammarians or schoolmasters, now so numerous a race in the world, we recommend Dr. W.'s nosology; for by them, rather than by the practical physician, immersed in the observation and treatment of diseases, must its merits be decided.

Anomalous Mental Affection.

In a recent number of the Lancet Mr. Lambert has detailed a curious case of which we shall here condense the chief features. The subject was an intelligent girl, about fifteen years of age, who while residing in the country, with some relations, in the absence of her mother, was either ill treated, or fancied herself so. The mother having settled in London, sent for her daughter, but the relations above-mentioned endeavoured to dissuade her from returning, alarming her with the fears of maltreatment from her step-father. On returning, however, she was agreeably disappointed, by experiencing the kindest reception. Yet this transition from negligence to parental affection seemed to fix more deeply her melancholy and abstraction. She endeavored to keep from society and wept alone. Five or six months passed thus, with a perceptible increase of the mental malady. Leeches were applied to the temples, and drastic purgatives were exhibited, with some advantage; but she soon relapsed, and complained of violent pains in the head. She was alternately elevated and depressed in excess, using extravagant language and gesticulations, without any adequate cause. A physician in Surrey, and afterwards two other medical men prescribed for, and were completely puzzled by the anomalies of the case. After the application of a blister, she had a succession of fainting fits—and after that, she appeared to lose the sense of feeling over the body. "A slap on the naked shoulder, the palm of the hand, the cheek, or even a pinch on any sensible part, were all equally disregarded." Her sense of hearing was also greatly obtunded, and vision was obscured. In fine, there is no end to the extravagancies which she exhibits, and it would be useless as well as tedious to relate them here. It may be observed however, that the girl maintains the appearance of robust health, though she does "not consume one ounce of food in the day." Bread and cheese are her favorite food, and even that but sparingly and seldom. She drinks but little, and that porter. She has not yet menstruated.

Remarks. Although no two of these cases are precisely similar, yet we have seen several of the same nature as the above. It is hysteria, and we have no doubt that the girl will recover, though the period is uncertain. We would recommend leeching the groins or the labia, with the hip-bath and such means as are likely to bring on menstruation.

Fatal Effusion of Blood into the Pericardium. By Dr. Carson, of Liverpool.

The following very interesting case we copy from the first number of the Liverpool Medical Journal—a new contemporary, which augurs well, if we may judge by the first specimen.

"Mr. W. a gentleman about 52 years of age, of a tall and robust form, clear complexion, subject occasionally to dyspeptic affections; though of very regular and temperate habits; of an active disposition, though his occupation was sedentary and confining; had been for twelve months affected with considerable anxiety of mind, in consequence of the doubtful issue of some building

speculations. Towards the end of Lent, which he had rigidly observed according to the injunctions of the Catholic church, on the 11th of March, a day exempted from the prohibitions respecting diet, he had eaten freely of beef-steaks with onion sauce. He was at that meal sparing as usual in the use of wine. On the evening of the following day, he was engaged in a fatiguing and rather anxious way, with the business of a club, of which he was treasurer. On his return from the club, about eleven o'clock at night, in company with two of his friends, when he had nearly reached his own house, he was seized with faintness and debility to such a degree, that without the assistance of the friends who accompanied him he would not have been able to have kept his feet. Soon after his arrival at his house, he was visited by Mr. Bromilow, his medical attendant. He described himself as faint and exhausted; complained of an obtuse, heavy pain at the precordia, and was affected with flatulent eructations. His respiration was free, his pulse 70, and regular, though weak. He had no affection of the head, nor pain any where, excepting as described in the chest. His bowels had been opened that day. Mr. Bromilow ordered an antispasmodic draught; and left him with directions to take something warm, and go to bed. He took the draught, and a weak glass of brandy and water. At three o'clock he sent for Mr. B. again, and, as the pain in the chest was not abated, he expressed a wish to be bled, which Mr. B. agreed to, more with the hope of satisfying his mind than from any great necessity for that measure being indicated by the symptoms. He lost a pint of blood. An opiate was then administered. At this visit, Mr. B. examined the chest more minutely. He applied his ear to the different regions of the naked chest, but perceiving no unusual sound, or vibrations, concluded that the heart, lungs, and large vessels were in a sound state. At five o'clock, a. m. I visited him. He felt cold, perspired gently, and chiefly complained of a pain in the chest, which he described as wearisome and oppressive. It was not increased by taking a full inspiration. He had vomited a little in the course of the night, and had discharged some of the onion sauce he had taken the day preceding the attack. He was much troubled with flatulency, and belched frequently, but was not relieved by it so far as regarded the pain in the chest. His pulse was regular; the heat of the body natural; and respiration good. He had had no sleep.

From the information given by Mr. Bromilow, connected with my own observation, I considered that nothing could be indicated by the symptoms beyond an affection of the stomach, which is known to exhibit itself in such anomalous forms. He took four grains of calomel, and two of opium. We visited him again at half after eleven o'clock. He had had little sleep. The symptoms remained the same. He was ordered an aperient mixture, and we proposed to visit him again at seven o'clock. At this visit, I replied to the anxious inquiries of the family—that we did not see any cause for alarm; that the complaint seemed to arise from indigestion; and that I had no doubt he would recover. At three o'clock in the afternoon he sent for Mr. Bromilow, as the pain still continued unabated, and wished to know if he might have any thing to rub the part with. The bowels had not been opened, and he had had little or no sleep. A short time before seven o'clock, the hour at which we had proposed to visit him, and at which I was prevented from attendance by an urgent call to a distant part of the country, Mr. W. was seized with what the family conceived to be a fit; and a short time after the arrival of Mr. Bromilow, expired. In consequence of my unavoidable absence, other physicians were called in, and two arrived, but not until after the death of the patient. I applied for permission to open the body, which was granted. The body was examined twenty-four hours after death, by Mr. Bromilow in my presence, and in that of my son, Dr. Carson, jun. The following were the

appearances on dissection. Upon opening the chest, the lungs on both sides were perfectly sound and collapsed. But, notwithstanding the collapse, the chest was filled more than it usually is when the lungs are sound. This indicated the existence of some foreign substance or morbid enlargement of some of the organs. The pericardium was found accordingly to be immensely distended by some fluid, which, when this bag was opened, was found to be blood, partly liquid and partly coagulated: the quantity was not less than three pints. It was purely blood, without the admixture of any fluid indicating inflammatory action. The external surface of the heart, and internal surface of the pericardium, were examined carefully, but no ruptured vessels, from which the blood might have flowed, were discoverable on either of these surfaces. The heart itself was perfectly sound, the valves were in good condition, and no disease existed in any of the large vessels. The lungs were free from adhesions, and were every where sound. The other viscera were in a sound state. A great deal of care and time were expended in trying to discover the source from which the blood had flowed into the pericardium, but in vain: a slight ecchymosis was observed about the root of the pulmonary artery. Dr. Baillie, in his *Morbid Anatomy*, says, 'Cases have occurred, though very rarely, in which a large quantity of blood has been accumulated in the cavity of the pericardium, but where no rupture could be discovered after the most diligent search, either in the heart itself, or in any of its vessels. This appears very wonderful, and not at all what any person would expect *à priori*. Two conjectures have occurred to me, to explain this phenomenon: 1st, that the blood-vessels on the surface of the heart have lost their compactness of tissue, so that the blood may have escaped by transudation. The other is, that the blood may have been poured out by the extremities of the small vessels, opening on the surface of that part chiefly of the pericardium forming the immediate cover of the heart, from their orifices having been to a very uncommon degree relaxed.'

There is a case related by Dr. Alston, in the 6th volume of the Edinburgh Medical Essays, in which the disease of the chest was of long standing. Three pints of blood, which was partly coagulated and partly mixed with lymph, were found in the pericardium. No ruptured vessel was discovered either on the outer surface of the heart, or the inner surface of the pericardium. Upon pressing the heart, a bloody serum oozed out of a great many orifices on its surface, and principally near its base. No disease was discovered in the interior of the heart or large vessels. Dr. Baillie refers to two cases of extravasation of blood into the cavity of the pericardium, in which the source of the hæmorrhage could not, after the most careful examination, be discovered. In both these, functional disease of the heart had been observed for some time previous to the death of the patient. Vide Medical Observer, vol. 10, p. 330. Memoirs of Medical Society, vol. 1, p. 238.

Various opinions have been advanced respecting the sources from which, in the above cases, the blood was derived. One of the suppositions made by Dr. Baillie appears to me to approach the nearest to the truth, which is that the blood had oozed out of the small vessels on the internal surface of the pericardium immediately covering the heart. It is probable, I think, that the oozing, particularly in the case now narrated, arose from the condition of the blood, and the relaxed state of the fibres. It would appear that the disease was general, and that the shivering, faintness, and depression of spirits were not the effects of the flow of blood into the pericardium, but that this last was, like the affections stated, the effect or symptom of the general disease, —that in fact there existed a morbid state of the whole system, similar to that which takes place in purpura, in some kinds of epistaxis, hæmatemesis, and in bleeding from the bowels in typhus fever. The pain in the chest was in the first place, occasioned by the admission of blood into a cavity not

accustomed to the stimulus of that fluid. There is no reason to suppose that the action of the heart would be mechanically affected until the quantity of the blood was pretty considerable; for the blood would readily follow the dilatation of the pericardium, occasioned by the elasticity of the lungs, when the chambers of the heart had finished their contractions. No sound was perceived, on carefully examining the chest. Indeed no sound could be excited, as no fluid was poured from one vessel into another. For as the auricles expand as the ventricles contract, the change of place in the constituents of the fluid in the pericardium would be inconsiderable, and made with quietness.

There does not appear to be any symptom in this case that would have warranted the medical attendants in giving an unfavourable prognosis. As a matter of prudence, a less favourable one might have been made, but the same prudence would not permit the expression of a favourable prognosis in any case whatever."

Upon this case we may be permitted to make a remark or two. We have no fault whatever to find with the treatment of the case, nor do we differ from the highly-talented narrator of it as to its pathology—or rather etiology. But we must say that the exploration of the chest was incomplete, and that *percussion*, added to auscultation, would *undoubtedly* have led to a grave prognosis. The state of the pericardium would have caused a dull sound, on *percussion*, over a very unusual space, and would have caused the greatest alarm in the mind of the medical practitioner accustomed to thoracic exploration. The want of any symptoms of enlargement of the heart, too, would have led to the inevitable conclusion that there was fluid of some kind in the pericardium. Thus, then, we see the great value of auscultation and percussion. In the present case, it would have saved the medical attendants from the suspicion (and indeed a justly founded one,) that they were unaware of the danger, and consequently of the nature of the disease. Nothing could have saved the life of the patient, had the physician been perfectly acquainted with the true state of the case; but his diagnostic and prognostic skill would not have suffered, had an accurate exploration been made.

We may take this opportunity of saying that, were we to be deprived of one of the two means of exploration, we would far rather give up auscultation than percussion. The latter is far more valuable than the former, though they prove auxiliary to each other.

We are sure that Dr. Carson will excuse these remarks, as they can have no other object than the good of the profession. Dr. C.'s reputation is far above the reach of censure, were we inclined to be censorious, which we are not. His brethren are deeply indebted to him for the candid manner in which he has narrated this interesting case.

TREATMENT OF CHOLERA IN IRELAND.

It appears from a small brochure, by Dr. Wilson, of Belfast, that cholera still lingers in several parts of Ireland, and has re-appeared in places formerly scourged by the epidemic. The object of this pamphlet is to denounce the mercurial treatment of cholera—not because it was less successful than the non-mercurial in its immediate effects; but on account of the injurious or fatal CONSEQUENCES which resulted to those who recovered from the disease. The following extract will illustrate the author's positions and opinions.

"In the hospital (Belfast,) the general plan of treatment consisted in bleeding the patient, if young and robust; then administering 10, 15, or 20 grs. calomel, with one or two grains of opium, repeated after various intervals, and washing all down with spirits and water. In the town, bleeding was scarcely ever had recourse to; and, as will be perceived by the quantity used (5 drachms among 1,656 patients,) calomel very sparingly. The mortality in the hospital was three times greater than that in the town. It is conceded, that the greater proportional mortality of the hospital over the town, is accounted

for by the greater severity of the cases which would be, of course, received there; and I am not disposed, like some others, to lay any of it to the charge of the treatment. The earlier application of remedies, and the generally more favourable aspect of the cases, may be assigned as the reason of the comparative low rate of mortality in the town; and partial as I am to the town treatment, and, in the same degree, hostile to the hospital, if I examine rigorously the circumstances under which each system was pursued, I can arrive at no other conclusion than that both modes are on a par, so far as the final issue of life or death is concerned; or, in plainer and more intelligible language, that no greater number of cures will be effected by the one than by the other. But, in regard to the CONSEQUENCES of the different treatments to those who survive, I must emphatically denounce the calomel, or hospital treatment, as immeasurably more destructive to the constitution. While we admit, that the greatest proportion of bad cases ought to be charged to the hospital, it is no less true, that many patients, with very mild or premonitory symptoms, found their way there also; for the instructions of the Board of Health to the medical inspectors were, to forward all cases, whither *incipient* or *advanced*, with the least possible delay, to the hospital, and to take charge of those patients at their own homes, who could not be prevailed upon to go there. At the commencement of the epidemic, and through the whole course of it, as was to be expected, many patients, with symptoms generated by terror, and not to be distinguished from the genuine disease, hurried in;—and they, I presume, with all others labouring under the slighter forms of the disease, were subjected to the mercurial plan, which I have so strenuously condemned. From peculiar circumstances, the inhabitants of some districts of the town readily availed themselves of the hospital accommodation; while, in others, none, or very few, of those affected, went in. In one of these latter, an old naval surgeon, who acted as medical inspector, has recorded the names, ages, residences, and *symptoms* of 253 patients, treated by him on the NON-MERCURIAL plan, and the deaths were only 18. I will here give the analysis of this document, which is among the records of the 'Belfast Board of Health.'

110 patients had vomiting, purging, and cramps.
113 patients had vomiting and purging.
18 patients had vomiting & cramps.
6 patients had vomiting.
6 patients had griping, nausea, and slight cramps.

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From this summary it will appear, that Cholera was met with, and successfully treated, out of doors, on a plan essentially different from that of the hospital; and he would be guilty of great hardihood, who would, after inspecting this list, pronounce that the genuine disease was only to be found in the hospital. Had these 253 patients been treated with calomel, many of them would not now have to congratulate themselves on the integrity of their constitutions, and their freedom from all the deleterious effects of mercurial irritation. The plan pursued with them embraced the use of opium, in a solid form, combined with camphor and Cayenne pepper; of laudanum, in conjunction with sulphuric æther and peppermint water; and of a cordial mixture, the basis of which was whiskey."

Dr. Wilson, in his zeal to banish mercury from the methodus medendi of cholera, has overstepped the boundaries of prudence in his anathemas against this useful, but perhaps often abused drug. He says the Army Medical Board has nearly banished mercury from the treatment of syphilis. Indeed! Dr. Wilson is somewhat behind the march of intellect on this point. The army surgeons are now treating venereal diseases in much the same manner as their *most intelligent* brethren in private practice—namely, by a judicious use of mercury. It is very true, however, that the anti-mercurial mania which prevailed several years ago, and

which still lingers among a considerable mass of the profession, is enriching most rapidly a class of sharp-sighted surgeons and physicians, who are widely employed in treating the "CONSEQUENCES"—not of mercury, but of the neglect of it.

Dr. W. thinks he uses a powerful argument against mercury, when he avers that many invalids come home from India with their constitutions ruined by mercury. We admit this fact, but we meet it by another, which Dr. Wilson has prudently, though, perhaps, not quite candidly, overlooked, viz. that for one constitution ruined in India by mercury, ten are preserved by it from the deleterious influence of the climate. Dr. W. leans on another cogent fact against mercury. "Why is it, at the present moment, that in every college and in every town in the empire, we meet with one or two *veteran* practitioners, who are gradually expelling mercury from the list of their medicinal agents?" We can tell Dr. Wilson why and how this is. It is because in every college and town in the empire, there may be even more than one or two *veterean* practitioners who are passing into the state of second childhood, and parting with what little intellect it pleased God to give them originally.

COMPOSITION OF THE PONTINE MARSHES.

The following is the concise account of these celebrated seats of malaria by Dr. Weatherhead, who walked across them rather than use the legs of the quadrupedes who carry our nobility and gentry with such speed across these pestilent quagmires.

"The volume of water which escapes from under the lime-stone mountains of the Apennines is truly astonishing. The principal drains run on each side of the road, and more resemble wide canals than drains in the ordinary acceptation of the word. They are so well levelled that the stream of water cannot stagnate, but runs freely away. With the object of ascertaining the nature of the soil of these celebrated marshes, I made excursions to the right and left of the road, where the water allowed me; and the result of my observations surprised me a good deal. The soil in most places is exceedingly superficial, often not deeper than two or three inches; and below this there is a foundation of solid stone. This last is a calcareous deposition from the waters flowing from under the mountains, and is precisely similar to the travertine found and formed in the neighbourhood of Tivoli. This sediment encases, and, in time, petrifies, the reeds and other tubular vegetables that grow in the soil, thus forming congeries of interrupted conduits for the lodgment of water. It is to this peculiarity of formation that the miasmata of the Pontine Marshes, in great part, owe their origin; but while there is no denying its pernicious influence to a certain extent, the degree of alarm this excites appears to me one of those common errors perpetuated by idle repetition, unconfirmed by personal investigation, and unreasonably exaggerated by the fears of the pusillanimous. In my way I passed above forty labourers at work, widening one of the drains; and, as far as I could judge by appearances, they all seemed robust and healthy, working with vigour under a scorching sun, and half up to their knees in water. Habit, it is true, is Nature's lieutenant, and we see elsewhere indigenæ thrive in a climate which is almost certainly fatal to a stranger not inured to it. Late in the evening I arrived at Terracina, where a comfortable bed and supper wore off the fatigue of the preceding day's march."

To Dr. Weatherhead's account of the composition of the Pontine Fens we do not demur; but we cannot say that the aspect of the inhabitants made the same impression on us that it did on our pedestrian traveller. The workmen in these morasses are mostly convicts, and those which our author saw may have been a fresh batch from the Papal prisons or the mountains. But we venture to say, that no people would long retain the semblance of health in such localities.

LIGATURE OF THE CAROTID ARTERY.

Our readers will remember some notice which we took of Mr. Preston's case—ligature of the carotid artery for epilepsy. In the last volume of the Calcutta Transactions, we find Mr. Preston renewing the subject; and he there informs us that the epileptic patient on whom he operated in February, 1831, has not had any return of his epilepsy, and is in perfect health. Another patient also, on whom the operation was performed, has regained, in a great degree, the use of the paralytic arm, and is quite free from pain in it. In the present paper Mr. P. takes occasion to observe that the operation in question is applicable to more affections than epilepsy. We shall now take a glance at some cases detailed in this volume.

CASE 1. *Headach and partial Paralysis.* This was a robust man, a native trumpeter, aged 24 years, admitted into Garrison hospital, at Cuddalore, 10th of August, 1831. He had been in hospital several times before, once for intermittent fever, and afterwards for headach.

"The symptoms under which he at present suffers are as follow: constant pain in the head, particularly the fore part; when he speaks his mouth and face are drawn to the right side; although his muscles are large, he is extremely feeble, and unable to walk without support; there is an appearance of idiotcy in the expression of his countenance and manner, but his judgment is not impaired; his stools frequently pass away involuntarily; there is partial loss of motion in the left arm and leg; complete loss of vision of the right eye, without any apparent change of structure; this he says was produced by inflammation consequent upon a blow; vision of the left eye greatly impaired; wanders very much at night; evacuations natural.

A very slight and temporary relief was obtained by the exhibition of iodine, by a seton to the neck, and a blister to the head. His present symptoms are precisely those detailed above, and appear to me attributable to increased arterial action within the cranium; with a view of diminishing which I have determined after much consideration, upon tying the right common carotid artery."

The right carotid artery was accordingly tied on the 2d of September, and on the seventh he was free from headach—was much stronger in his limbs, and had lost the appearance of imbecility. He continued however to shew some disposition to delirium at night. He had not the proper control over his facial muscles, and could not command the expression of the face. On the 27th he walked five miles, and was much fatigued. This was followed by some fever. His vision was impaired.

"On the 3d of October, his vision was not improved, although the head was quite free: he was ordered calomel and opium three times a day. On the 6th there was slight salivation, but no improvement of vision. As the affection of the sight was attributed to some return of the state of the brain for which the first operation was performed; a ligature was applied to the left common carotid artery on the 10th of October. He felt very weak after the operation, although very little blood was lost. He was discharged on the 11th of November: vision continued imperfect; but in every other respect he had entirely recovered his health. He was subsequently discharged, on account of the defect of vision."

The above was what we would call bold practice.

Case 2. A man aged 51 years, was admitted on the 22d August, 1831. He was a short stout man with very short neck, and its muscles much contracted, so as to draw the head down upon the chest. The eyes were full, prominent, and had a strained appearance. This man had been subject to epileptic fits (coming on six or seven times in the month) for six years past.

"His present symptoms are, complete loss of power of the right half of the body, with very great impediment to utterance; the muscles of the face and tongue are drawn to the left side when put in action. This attack of

hemiplegia occurred twenty days ago, immediately previous to which he had been drinking hard. The feet are cold; great irritability of temper is evident; the right thumb is bent upon itself, and kept down upon the palm of the hand; if straighted, it becomes bent again immediately, in the same manner: the thumb has been in this state for the last seven weeks, having assumed this position immediately after an epileptic fit. The pulse and skin are natural; there is now some pain in the head, and he has for a long time suffered from headach. I do not conceive that any benefit is to be expected from the usual modes of treatment in this case, neither does the continuance of this state appear to me free from danger. Intellectual functions not affected."

A ligature was placed on the right carotid artery, 23d of August. On the 24th he could move both arm and leg and straighten his thumb, without assistance from the other hand. Less headach than before the operation, and speaks better. By the 3d of September he was able to move about with the assistance of two sticks. On the fourth he had three epileptic fits, and was rather worse the next day. After some vicissitudes in the course of his complaint, he was discharged greatly improved on the 26th September, being able to walk about with a stick, and free from fits or headach. On the 14th of November, however, he was readmitted, having previously suffered much from epileptic fits. There had also been much headach—inability to walk—constant throbbing in the head—voice much affected—the fits much increased in violence at full and change of moon. The left carotid artery was therefore tied. He was previously bled and leeched with some advantage. On the 16th November, two days after the operation, we find him complaining much of the head, and the power of the right arm almost entirely gone.—Nov. 18th. Much better—has recovered the use of the right arm. On the 23d, a seton was inserted in the neck. Afterwards nux vomica, a grain three times a day, was given, and whether from this, from the seton, or from both these with the operation, he appeared to be much better. On the 8th December he was discharged though not cured. On the 25th January, 1832, we are informed that the unfortunate man still suffers from pain and throbbing in the head—fits—inability to speak—and much difficulty in walking. Our author thinks that his life has been prolonged by the operations, and that many of the symptoms have been mitigated. There can be no doubt of serious and insuperable organic disease of the brain, which will, ere long, terminate his existence.

P. S. A short report is appended, dated 17th January, 1833, in which we find that the patient had much recruited, but was seized with paralysis agitans. From this, too, he recovered considerably—and "is now able to walk about with one stick, with ease, and speaks with very little impediment."

These cases are certainly curious both in a physiological and pathological point of view, and deserve the attention of our brethren.

THE ABSENTEE; OR, BLESSINGS OF ITALY.

The following portrait is drawn by the Author of the "RECESS," in the pump-room at Cheltenham. It is said to be imaginary; but we believe that it is drawn from real life.

"A tall gentleman, with two ladies, (apparently his wife and daughter,) advanced to the pump, and each drank off a goblet of the medicinal waters. There was a peculiar unhealthiness in the aspect of these three individuals, which attracted my notice. It differed from the half-jaundiced sallowness of the Anglo-Indian invalid—and also from the pallid and faded complexion of the fashionable and dissipated SEASONERS of the metropolis. It had a sicklinesss, *sui generis*, and beyond my power of analysis. As soon as they began to converse with each other, I recognized the accent of the Emerald

Isle—and this increased my wonder. I applied to my aerial CICERONE for information. 'That gentleman,' said he, 'is a great landlord and squire in the county of ——. Ireland. His numerous tenantry are ignorant, and therefore semi-savage—disagreeable to the eyes of the fashionable family; and therefore, perhaps, somewhat dangerous. Under these circumstances, it was opportunely discovered that the health of a daughter was delicate, and that the climate of Ireland was damp—that the skies of Italy were bright—the society there recherché—and expenses very little more than in Castle Rackrent. The conduct to be pursued admitted of no question. The bailiff was ordered to collect the rents, and the courier was ordered to prepare for the journey. Paris was visited—the Simplon was scaled—and Florence, Rome, and Naples were explored.—Years passed away on the classic soil, and yet curiosity was not sated, nor pleasure exhausted. But, on a fine summer's evening, while the family were sitting on the heights of Albano, inhaling the balmy zephyrs, and enjoying the superb panorama of the Campagna, with its scattered ruins and surrounding Apennines, one of the young ladies inspired the deadly poison that so often floats on the fragrance of Italian gales! The tide of happinness, like that of fortune, has its affluxes and effluxes. The current of affliction now took its turn. The hapless and innocent victim of an Italian climate, (to speak of nothing else,) fevered, faded, and ultimately sunk beneath the pestiferous influence of the syren soil! Her spirit fled to heaven—her mortal remains lie on the banks of the Tyber, near the pyramid of Caius Cestius.

'The long inhaled poison of Italian malaria—the heart-rending scenes attendant on the protracted sufferings of the beautiful girl—and feelings, which are best known to the unhappy survivors, have produced the frightful ravages in the minds and bodies of the party before you, which have riveted your attention. The waters of Lethe may, but those of Cheltenham never can, wash out the mental and corporeal sufferings of that wretched TRIO.'"

CURIOUS GEOLOGICAL PHENOMENA.

Dr. W. Beattie is conducting the letter-press of a very interesting, able, and cheap work, "SWITZERLAND ILLUSTRATED," from the second number of which we extract the following geological particulars. Near Geneva stand two mountains, the great and the little Saleve, presenting their steep escarpments of lime-stone to the valley of the Rhone, while, on the South-side, they slope down to the valley of the Arve. On this (South) side, may be seen, not the remains of an ancient city or temple, but the magnificent ruins of mighty mountains, and the monuments of an overwhelming catastrophe, which transported these ruins into their present situation. The snow-clad mountains from which they were torn rise majestically to view, at the distance of 50 miles! On the little SALEVE, 1400 feet above the valley, are scattered numerous blocks of granite, of vast size, not at all water-worn, but almost as fresh as if recently rent from the parent mountain. They are identical with the granite of Mount Blanc, while the surrounding mountains, and the Saleve itself, on which they lie, are *calcareous!* On the great Saleve, and 2500 feet high, is a huge block of this granite. These blocks are not broken or shattered, as they would have been, had they been hurled with violence from the Alps; neither do the lime-stone strata, on which they rest, present any appearance of fracture or indentation by their fall. The blocks lie quietly on the surface. Dr. Beattie inclines to the explanation attempted by Bakewell,—namely, that these blocks were transported by the floating glaciers of the Alps, and not by any sudden rush of waters, as Saussure imagined.

We strongly recommend this work. Each number contains four bea executed plates, besides the press, price only *two shillings*.

THE SIROCCO.

Dr. Weatherhead has broached a new theory of the sirocco. In the first place,

however, he avers that nothing is more indefinite than the word SIROCCO, "since every breath of air offensive or oppressive to a travelling Smellfungus's feelings must assuredly be a sirocco." Against the idea of this debilitating and suffocating wind being caused by its passage over the Afric sands, our author opposes the fact that Agrigentum and the whole south side of Sicily, which are directly opposite to the point whence the sirocco is supposed to come, "is not noticed by any writer as being particularly exposed to its stifling influence." Naples, Messina, and Palermo are, he says, the places principally annoyed by the sirocco. "Again, no part of the coast of Greece has ever been reputed as liable to the effects of the sirocco." Finally, our author denies that the sirocco is a wind at all—it is a calm! Now with respect to Greece, we find Homer talking of—

> ——— Auster's sultry breath,
> Pregnant with plagues, and shedding seeds of death.

While Horace, more than once alludes to the "plumbeus auster." Mr. Matthews pretty significantly answers the objection of Dr. Weatherhead as to the sirocco being a wind at all—in the following passage.

"The sirocco wind, which has been blowing for six days, continues with the same *violence*. The effects of this south-east *blast*, fraught with all the plagues of the deserts of Africa, are immediately felt in that leaden oppressive dejection of spirits which is the most intolerable of diseases."

Dr. Johnson, too, bears testimony to the truth of Mr. Matthew's description of the sirocco *wind*.

"Yesterday the sirocco — Auster's sultry breath—steamed over Naples, depressing the animal spirits and the vital energies to the lowest ebb. It is impossible to convey an adequate idea, in words, of the sedative effects of this wind on mind as well as body. I tried to respire in freedom on the roof of the Vittoria—on the Chiaja—the Mole—the Cheatomone; but found no relief from the nervous depression and muscular langour induced by this mephitic composition of rarefied air and aqueous exhalation. From lassitude of body and dejection of mind there was no escape, while this accursed *blast* prevailed."—*Change of Air, 3d Edition.*

We do not deny, however, that the depressing effects above-mentioned may be felt during a calm; but we believe that such calm must be posterior to a southernly wind—or that a stream of air from the South actually prevails at some height, though the atmosphere appears calm on the surface of the Earth. We shall allow Dr. Weatherhead, however, to state his own theory of the sirocco.

"From the fuming mouths and crevices of Vesuvius, and the pseudo-volcanic vicinity of the Pisciarelli, Solfatara, and Baiæ (*vaporiferæ Baiæ,*) from Stromboli and Etna, there is constantly issuing mephitic vapours and gases, which, from their heated and rarefied state, naturally ascend, and, mixing with the purer circumambient air, get diluted and dispersed by every casual wind. But let us suppose not an unusual occurrence to take place, namely, that this mephitic atmosphere shall suffer a sudden diminution of its elasticity through a change of temperature taking place high up in the air, while the aqueous vapour it holds dissolved becomes in consequence more condensed; and that at the same time there shall be no wind to disperse the gaseous exhalations as they continue to arise from below; the natural effect must be, for these dense vapours to descend, and for those which are being evoled to fall again, as soon as they have cooled down to an equilibrium of temperature with the surrounding atmosphere. The necessary consequence of all which must be, for this concentrated mass of mephitic vapour to lodge, by reason of its greater specific gravity, on the surface of the earth, and thus envelope within its range and influence every thing that breathes."

If a *calm* be essential to the Doctor's theory, we can only say that a breeze of wind is *very generally* the accompaniment to a sirocco, even of the worst kind—and if this be a fact, the hypothesis of our worthy and ingenious traveller is in some danger.

Ulcers of the Leg.

From a little volume of considerable practical utility, entitled "Observations on the Ulcerative Process and its Treatment, particularly when affecting the Leg," by Mr. Eccles, we make the following extract, as a sample of the matter and manner of this unostentatious publication.

"The cases in which the morbid condition of the condensed cellular tissue forming the cup of the ulcer appears to be the cause of continuance of the disease, are distinguished by the induration of the edges, the scantiness of the secreted matter, and the insensibility of the sore. There can be little doubt that bandaging and various stimuli have some effect on the cellular structure in question, as well as on the sanguineous and secernent vessels; but there are two agents which I find of particular efficacy in removing the more obstinate peculiarities of such cases. These are mercury and iodine. The former is well known to possess the power of lessening induration when given internally, and some have thought that the same efficacy is attached to its local application. After much experience, I am, however, brought to the conclusion that mercurial dressings are void of any specific utility analagous to the constitutional action of the remedy; that they stimulate in peculiar modes, but perform no important part in effecting the removal of indurated cellular tissue. The local effect of mercury is extremely great in changing the character of sores in general, and in the form I am describing, it is very salutary. We shall find, however, that if its action be not immediate, no good purpose will be answered by its continued employment.

Iodine, internally administered or externally applied, and even in those forms which have lately been described as inefficacious, I have always found of great service in removing this species of induration. It often requires to be used for a tedious length of time, to be remitted should it produce much constitutional derangement, and again employed when the state of the general health will permit. I have not met with a case in which iodine has failed to remove the induration; but if such were to occur, it would perhaps be advisable to remove the indurated structure with the knife. This has been done, and certainly with perfect success, the new wound healing rapidly. But so decisive a practice would only be justifiable where every other method had repeatedly failed."

There are many judicious observations in this book on the ulcerative process, as it affects the different animal structures, which deserve the attention of the young surgeon.

Dr. Weatherhead on Malaria.

In an amusing and instructive pedestrian tour through Italy, by Dr. Weatherhead, we find the following conjectures (for they can hardly be considered as proofs) relative to the origin of this mysterious agent in the eternal city.

"Walking on the Monte Pincio one day, I perceived thin and variously composed strata of volcanic dust, developed by the partial cutting away of the hill for the path which ranges on its height; and on examining it in different places, I found it to be entirely formed of a mound of the same volcanic material. It is of a bluish colour, speckled with white spots perfectly calcined, and possesses a strong attraction for humidity. Some that I got several months ago is even now more damp than when taken from the hill, though repeatedly dried by the sun as carried about in my knapsack. This property of the soil of Rome is, in my opinion, the chief source of the malaria, so fatal in its effects here at certain seasons of the year. Its line of distribution marks the limit of its operation, and this circumstance will explain how one side of a street should be notoriously unhealthy, and the other free of any noxious influence. The most heedless observer must frequently have witnessed how speedily the roads in the neighbourhood of Rome dry after even great torrents of rain. He mistakes much if

he thinks this proceeds from evaporation; for the heat of the sun, even in the hottest summer months, could dissipate but little in so short a space of time: it is absorbed by the thirsty nature of the soil; and he may convince himself of the fact, by remarking how permanently moist this is all the year round a few inches under the surface. Heat and moisture, we all know, vivify and disengage the fomites of disease; no wonder, then, that these, acting on the débris of animal and vegetable matter in a state of decomposition, buried for ages, and daily gaining fresh accumulations, should generate pestilential effluvia, and by contaminating the atmosphere of Rome during summer, produce fevers of so fatal a type.

This pernicious condition of the soil is not confined to Rome (six out of seven of the hills on which it stands I ascertained to be volcanic), but extends as far as the deliquescent earth (its peculiar matrix) itself does; and hence the unhealthiness of the whole of the Campagna. Circumstances certainly modify its degree of intensity; but I think facts will bear me out in circumscribing the sphere of the operation of malaria to the demarcation made by the line of its extent. The Pontine Marshes, again, owe any peculiar unhealthiness they possess to another kind of formation, of which I shall speak hereafter."

Dr. Weatherhead's theory does not account for the varying position of the malarious portions of Rome. It is well known that the unhealthy topography changes, and that malaria has, for many years past been progressing from the eastward to the westward. It cannot be supposed that the soil itself has changed—and we must therefore come to the conclusion that some subterranean agent is at work which causes the emanation of mephitic miasmata from the surface of the earth, while the primary cause is far from our ken.

We cordially agree with Dr. W. however, in the following sentiments.

"The air of Rome is heavy and unwholesome, especially for invalids requiring a strict regimen and great care; and perhaps it would be advisable, on more accounts than one, to have regard to the ordonnances which the stranger will read in the church of Minerva.

With regard to the fitness of the climate as a residence for the pulmonary invalid, I cannot agree in those unqualified commendations which some have bestowed upon it. The air, as I have said, is heavy and moist, and certainly there are some whose lungs such a temperature of atmosphere may suit; but this I think is certain, that if it prove not beneficial, the trial cannot be made with impunity; and no physician, if honest in his opinion, can say, *à priori*, whether it will prove so or not. In spring, again, and even in summer, a cold wind blows at times from the Apennines, which suddenly chills the air. This is an observation of Pliny's. My conviction is, that many a consumptive patient, who might have leisurely walked to the grave elsewhere, gallops to his goal at Rome: his langour increases under the depressing influence of so moist and relaxing an atmosphere; his nocturnal perspirations become more profuse and colliquative, his expectoration more exhaustingly copious; a quickened circulation fans the inflammatory combustion, and a keener hectic feeds on the vital principle until it is consumed, when death, closing the scene, bears away the last sigh, fraught with regret for having ever left home."

TEMPERANCE SOCIETIES.

In the long black catalogue of causes which occasion sickness, death, and crime among mankind, there are few items which appear more conspicuously operative than intemperance—especially intemperance in ardent spirits. It is difficult to say which is most injured by this—the mind or the body. Certain it is, that both the morale and the physique suffer severely from this cause, the amount of moral ill being, at least, equal to the amount of bodily disease. Widespread as the evils of intemperance are in this country, it is acknowledged, both by American and

European travellers, that the diffusion of it is greater beyond the Atlantic than in the Olden Land. Many causes may have conspired to produce this misfortune—or rather this misconduct. The cheapness of the inebriating material must be one. Example spreads the pestilence, and it is not much to be wondered at that the myriads of emigrants from Ireland, Scotland, and other parts of the world into the Land of Liberty and Plenty, should have given an immense impetus to the habit of intoxication. But no doubt a great variety of causes have combined to produce the evil in question, and we are happy to learn that a corrective check is springing up among our transatlantic brethren, which bids fair to grapple successfully with the enemy, by attacking him in his very citadel, and strangling him in birth. These observations will be elucidated by the following letter from Dr. John S. Butler, of Worcester, Massachusets, accompanying a number of documents, which we are unable at this moment to analyze and collate. We have seen enough however, to certify that the letter of our brother physician gives a fair resumé of their principal results, and that in clear and forcible language. The intelligence will be particularly gratifying to every friend of religion, morality, and social order in this country.

Worcester, Massachusetts, N.S.A.
April 2, 1834.

Dr. JAMES JOHNSON.

Sir—The devotion of the pages of the Medico-Chirurgical Review to the promotion of science—its high-toned liberality—the fearlessness with which it assails ancient abuses—the power with which it exposes popular fallacies—its wide spread and happy influences, and the energy and zeal with which it brings those influences to bear upon the public good, with the kindliness and courtesy which it manifests towards the institutions, &c. of America, have induced me to intrude upon your attention the accompanying documents, and to solicit for them a brief consideration.

They relate to the history, present condition, and prospects of the Temperance *Reformation* (as the popular movement against the use of ardent spirits has been aptly termed) a subject which has excited an intense interest in the United States, and one which must exert an important influence upon the practice of medicine and surgery in all parts of the world.

The public mind in England has also been called to it in some degree; but aware that much of error and misrepresentation has ever been cast around this enterprize both *here* and elsewhere, and fearing that the friends of the cause in Great Britain may be induced to trust to the power of legislation rather than to the mightier energies of *enlightened* public sentiment, I present these documents to you, Sir, in order that these principles may be fully and fairly presented to your mind, with the expression of my earnest solicitude that you may be induced to appear the same able and eloquent advocate of *social* as of *medical reform*. Referring you to these documents for a full exposition of this subject, permit me briefly to state a few prominent and leading facts.

It was about ten years ago that the public attention in this country was first aroused to the alarming extent of the vice of intemperance. Careful investigations, made at different times and at different places, by gentlemen of patriotism and philanthropy, *proved*, by the most conclusive and undeniable evidence that "two-thirds of our pauperism, nine-tenths of our crime, two-thirds of our insanity, and an annual expense of from *one hundred to one hundred and twenty millions* of dollars were to be traced directly or indirectly to the moderate or immoderate use of ardent spirit; that 300,000 drunkards, 75,000 criminals, 200,000 paupers, 6000 lunatics, were its victims—whilst during every year, at least 30,000 sunk into the drunkard's grave. It was found that the ravages of this vice had extended not only to the sanctuaries of religion, our legislative halls and judicial courts, but that the freedom and purity of the elective franchise was endangered."

Voluntary associations pledged to total abstinence, the diffusion of intel-

ligence in every way by the publication (and in many instances, gratuitous distribution) of essays, newspapers and tracts,—by public discussion in assemblies and conversations—by addresses from clergymen, &c. and by agents traversing the country in every direction, have been the means with which we have endeavoured to drive this fearful pestilence from our borders. The press of the New York State Temperance Society alone, has issued during the past year 4,438,500 copies of Temperance publications; equal to *eighty millions* of duodecimo pages!

The Massachusetts State Temperance Society, formed in 1826, was the first society, (of any importance) organised in this country. According to the 6th Report of the American Temperance Society, published in *May*, 1833, since 1826, 6,000 Temperance Societies have been formed, 2,000 distilleries have been relinquished, 5,000 merchants have abandoned the traffic, 5,000 drunkards have become sober men (many of them highly respectable and useful members of society), 700 vessels are navigated without the use of ardent spirits, and upon all such vessels the Insurance Offices of Boston deduct 5 per cent. from the premium of insurance, and more than one million persons have signed the Temperance pledge!

The use of spirits is forbidden in the army and nearly abandoned in the navy. Ten months have passed since the above meeting, and during this time the reformation has advanced with unparalleled rapidity; it is now estimated that there are *more* than 1,500,000 signers to the pledge; unquestionably the next Annual Report will shew an increase of the above statistics of *at least* 33 per cent. The February No. of the Temperance Magazine will contain the signatures of 1,600, nearly 2,000 in all, American and English, of the most respectable physicians in the N. S. to the statement that "men in health are never benefited by the use of ardent spirits," and that "the use of them is a frequent cause of disease and death."—[*Vide* p. 8 of 6th Report A.T.S. and No. 1. Vol. II. T. Mag.]

I will mention but one fact more and that in regard to the influence which this reformation must have upon the practice of medicine, &c. The population of Albany is 26,000, of whom 5,000 are members of the Temperance Society —number of deaths by cholera in 1832, 336 reported—of whom only two were members of the Temperance Society! The documents to which I would refer you for evidence of the accuracy of the statements and for more full and explicit accounts, are the 4th, 5th, and 6th Reports of the American Temperance Society, the 1st vol. of the Temperance Quarterly Magazine, the 1st No. of the 2d vol., and some copies of the Recorder, Intelligence Almanac, &c. Several important documents will come out in the course of the Summer: it will give me great pleasure to forward them to you from time to time, if it would be agreeable to you to receive them.

In this country, at least, the profession knows no higher authority than the Medico-Chirurgical Review. Its influence and its circulation are co-extensive with the science of medicine, in all parts of the world. Its influence, therefore, is as wide spread as it is salutary. It appears to me that the subject of the Temperance reform comes strictly within its legitimate sphere; and were it to come out and expose the consequences of intemperance—*of the use of ardent spirits as a drink*, as ably as it has the ignorance of quackery, the folly of cholera-phobia, and the corruption and bigotry of corporate monopoly, it would do a more blessed deed for *our* "father land," for the *world!* than it is in the power of any other individual in the British Empire to accomplish.

Pardon me, Sir, if I have appeared to have forgotten that I am addressing a stranger—the Editor of the Medico-Chirurgical Review hardly appears to *me* in that character! I have so often turned to his eagerly welcome pages for delight and instruction; have been so often guided aright by his advice, in those hours of anxiety and doubt which so often hang over the *young* practitioner, that I must confess some of the feeling as towards an elder and more

experienced practitioner, upon whose sympathy and kindness I have been accustomed to rely.

It may not be in my power to send the last number of the Magazine, (No. 1, of Vol. 2d) if it does not come to hand in time for the packet. I will send it by the next. If you should desire to obtain more information upon this subject, or upon *any subject* in relation to this country, I shall be proud to have you command my services. Sensible that your time is too valuable to be wasted, I have ventured to mark those portions of these documents as will probably be most interesting to you. If they are safely received, it will be gratifying to me to receive a brief acknowledgment of the fact. Please address to Dr. John S. Butler, Worcester, Massachusetts, N.S.A.

If further apology is due for the boldness with which I address you, Sir, let it be found in the ardour of *youth*, and its necessary sympathy with the generous sentiments which pervade your writings.

I have also sent you two Reports of the Trustees of the Massachusetts State Lunatic Hospital—a hospital for the *pauper insane!* Similar institutions are about being erected by several other States—this is the only one of the kind in the N.S., and I trust that the noble example which the humanity of Massachusetts has placed before the public, will ere long be imitated by every State in the Union. You will perceive that here the pauper has the first claim, and there are so many of that class, that nearly all of the private patients have been dismissed for want of room.

I have the honor to be, Sir,
Your obedient Servant,
JOHN S. BUTLER.

We beg to return Dr. Butler our best thanks for his interesting communication, and sincerely hope it will have all the beneficial influence in this country which his own philanthropic mind can hope or desire.—EDITORS.

PROVINCIAL HOSPITALS.

We willingly give insertion to the following memorial from the Bristol Infirmary, because it bears upon the medical polity of the provincial hospitals and schools generally.

"*To the Chairman and Committee on Medical Education, &c. &c.*

GENTLEMEN,

1. In addition to the answers to the questions contained in your Circular, we beg leave to subjoin the following statement, to which we respectfully call your attention, as connected with the subject which must form no inconsiderable portion of your inquiries, namely, *Medical Education.*

2. In the year 1735, Bristol projected, and in 1736 carried into effect, the scheme of a Hospital, supported entirely by voluntary contributions. Its foundation is believed to be nearly coeval with, if not to have preceded, that of the Hospitals in London, and of similar Institutions in Scotland and Ireland; royal, endowed, and chartered foundations only excepted. This Institution now contains from 200 to 220 In-patients—Out-patients, from 5,000 to 6,000. Average number of casualties, about 1,200 annually.

3. The whole range of Building is uniform and extensive, having been re-erected within these few years; furnished with Baths, Warm Air, and other modern conveniences; and has attached to it a spacious garden, as a promenade for convalescents; in a word no expense has been spared which could contribute to the comfort and recovery of the inmates.

4. This Institution is also enriched with a valuable and daily-increasing Museum, a Library, a Lecturing Theatre, and excellent accommodation for Examinations and Dissections; in the latter of which our students are almost daily engaged, under the able superintendence of the House-Surgeon.

5. The ordinary disbursements are annually from £5,000 to £6,000; and there has been lately expended, in providing accommodation for the Out-patients, about £3,000 in a supplementary building.

6. It may not be amiss here to recount the advantages which the city of Bristol possesses for a great Medical

Establishment. With a population equal to that of most of the capitals of Europe—with a large and well regulated Hospital, and also a Medical School—the student here may learn not only the principles and practice of Medicine and Surgery, but also witness, on a great scale, the nature of most of the diseases and accidents which afflict mankind.

7. With the above statement before you, gentlemen, it will, perhaps, be a matter of surprise, that there could have existed any doubt of the propriety of conceding to us the ability to qualify any students for examination; yet the fact is, that it is only since the *25th of November*, 1831, that we have been '*recognised*' by the College of Surgeons; and even then partially, as our dressing apprentices of *five* years' standing are at present under a peremptory *obligation* of walking, as it is termed, some one or other of the London Hospitals, for a period of six months. On this subject it is remarkable, that the regulation of the College should only require a *walking* attendance of twelve months in a London Hospital, from young men who never before may have been within the walls of any Hospital, while our apprentices have not only witnessed the practice of the Bristol Infirmary, but have been constantly employed as *dressing* pupils, and in the charge of casualties, for a period of *five* years.

8. This representation, we presume, entitles the Bristol Infirmary to be justly considered a hospital of the first class. Even in the metropolis there are not above four or five that exceed it, either in size or importance, as a school for scientific and practical surgery; and none surpass it as to the regulations established by its governors for the education of the students; it may be asserted that no hospital in the kingdom affords greater opportunities for the acquirement of medical and surgical knowledge. On this subject the surgeons are desirous of the fullest investigation; and, as some proof, they beg to refer to every one of their students who have attended in London, who will confirm the fact from their own experience and observation. Besides, it is well known, that students, who have received their medical education at this Infirmary, have acquitted themselves with marked ability as candidates for their diplomas, when under examination at the College of Surgeons and Apothecaries' Hall.

9. For these and many other reasons, the surgeons of the Bristol Infirmary have ever considered the following regulation of the Council of the Royal College of surgeons as oppressive and unjust; but they are willing to believe, founded on an erroneous view of the opportunities the Bristol Infirmary affords of cultivating medical science. Pupils and apprentices, when candidates for the diploma, must bring proof —

10. '*Of having attended, during twelve months, the surgical practice of a recognized Hospital in London, Dublin, Edinburgh, Glasgow, or Aberdeen; or for Six Months in any one of such Hospitals, and Twelve Months in any recognized Provincial Hospital.*'

11. The surgeons of the Bristol Infirmary are of opinion that the above regulation of the Royal College of Surgeons,—which requires an attendance of Six Months, as a Walking Pupil, at one of the Hospitals in London, in addition to an attendance during one or more years at a recognized Provincial Hospital, as a necessary condition for obtaining the Diploma of the College, —is highly objectionable; and for the following reasons:

1st. Because it is unnecessary. A student may spend the prescribed time quite as profitably in attendance at a recognized provincial Hospital, as upon those in London. In fact, with the exception of four or five of the metropolitan Hospitals, the recognized provincial Hospitals are upon a larger scale than those of the metropolis.

2nd. Because it is injurious to the morals of students. It is a notorious fact that students, after a residence of only a few months in the Capital, frequently fall into practices of dissipation and immorality foreign to their previous habits, and ruinous to their future usefulness, respectability, and happiness.

3rd. Because it has a tendency to render provincial education less efficient than it would otherwise be. It has often been observed that students neglect to make a proper use of the advantages afforded to them in their attendance at a recognized Provincial Hospital, from a notion that the full prosecution of their studies may be delayed until their residence in London, where, they imagine, the opportunities of acquiring professional knowledge will be more worthy of their attention; and, in consequence, they crowd into that brief period a far greater number of pursuits than their time, or their previously-formed habits and inclinations will enable them to follow with any prospect of advantage.

4th. Because it occasions a very considerable increase in the pecuniary expenditure of the student, without advantages in any degree correspondent to the extent of the outlay.

Lastly. Because it implies an invidious distinction between the surgeons of the recognised Provincial Hospitals and those of the Metropolitan Institutions, a distinction which cannot be supported by a fair comparative estimate of their respective attainments and capabilities.

In addition we beg to draw your attention to the circumstance that, not only has the time prescribed for Professional Study been of late considerably lengthened, with a corresponding augmentation of expense, but the number of branches of science which must be attended to has also been greatly increased.

Gentlemen, we will take up your time no longer than to submit to you that we require redress; and to repeat that the Bristol Infirmary has a fair claim, in every point of view, for admittance into the first class of Hospitals in the United Kingdom.

We have the honour to be,
Gentlemen,
Your most obedient Servants,
RICHARD SMITH,
WILLIAM HETLING,
RICHARD LOWE,
HENRY DANIEL,
NATHANIEL SMITH,
The Surgeons of the Bristol Infirmary.

Bristol Infirmary Consultation-Room,
April 22d, 1834.

To HENRY WARBURTON, Esq., M. P. &c. Chairman of the Committee on Medical Education, House of Commons, London."

The injustice of putting a five years' *dresser* at the Bristol Infirmary nearly on a par with those pupils who have never been in an hospital at all, is indeed striking, and will, no doubt, be remedied in the new order of things. The question whether any hospital attendance in London, at all, be necessary or desirable, is not so easily settled. We believe that not one of the medical officers of provincial hospitals would fail to send their sons (if educating for the profession) for ten or twelve months, to a metropolitan hospital, previously to settling in practice. But this does not prove that a London hospital attendance ought to form a sine qua non for passing the College of Surgeons. If the curricula of education be rendered uniform throughout these Islands, and the examinations searching, we would merely suggest a longer attendance on a provincial than on a metropolitan hospital. It ought to be remembered that, in London, the pupils of one hospital have the privilege of seeing the operations in all—a privilege which certainly is not entirely valueless. Many operations may be seen in the course of a year in the London hospitals, which never occur in a provincial establishment—and the very circumstance of seeing the various surgeons of the metropolis operate, is not without its benefit to pupils from the provincial schools.

DR. TURNBULL AND VERATRIA.

In our last No. we expressed a hope that the experience of others might confirm that of the author, promising at the same time that we should communicate the results of our own trials. It is unnecessary to assure our readers that on this, as on every other subject of professional inquiry, our minds have not been biassed either by prejudice or

partiality. Truth and justice are ever the only guides of our conduct.

In two cases of facial neuralgia affecting the infra-orbital nerves, and which had continued, with varying severity, for three and seven years respectively, the use of the strong veratria ointment has been followed with speedy and decided relief; the paroxysms being rendered not only of much shorter duration, but also less agonising and of less frequent recurrence. One of the patients, a carpenter, about 60 years of age, had been for nearly two years so afflicted, that he was quite incapable of following his work during almost the whole of that time; every alteration in the state of the weather, however trifling, inducing a fit of pain. After a week's employment of the ointment his condition was greatly improved, and along with the comparative ease which he enjoyed during the day, he began to sleep quietly at night; a comfort of which he had been nearly quite deprived.

The second case, occurring in a countryman, of between 60 and 70 years of age, was as satisfactory as the preceding. Both patients are indeed still subject to returns of the enemy's attack; but so confident are they of having him under their power (by rubbing the affected parts with the ointment until its full effects are produced) that they always carry a box of it in their pockets wherever they go.

We have seen a third case of painful affection of some of the twigs of the infra-orbital nerve, in a middle-aged lady. It had resisted a great variety of treatment; but has now yielded almost entirely to the use of the veratria. From the circumstance however of this patient being of an extremely nervous and delicate constitution, as well as from the other features of the case, we were inclined to regard the facial pain, rather as one symptom of hysterical disease, than as a specimen of genuine or idiopathic neuralgia. Nevertheless we must confess that it had tortured her for a length of time, and that the relief which she now enjoys is truly great.

The fourth case was one of rheumatic neuralgia, affecting the lower extremities. The disease had originated about 20 years ago, from exposure to cold and damp; and the patient, a clergyman, had tried a host of remedies, prescribed by many of the most eminent medical men of this metropolis, with very little advantage. The nerves chiefly involved, appear to be the superficial branches of the anterior crural and fibular trunks. The results of his experience of the veratria ointment are, that whenever he is able to induce its peculiar effect upon the parts, the pain begins to abate, and then gradually subsides. He is also of opinion, that the recurrence of the paroxysms has not been so frequent.

The fifth case was in some respects similar to the preceding one, but much more severe. The trunk of the sciatic and the branches of the gluteal are chiefly affected.

Frictions with strong veratria ointment (ϑij. to the ʒj.) were repeatedly tried, but without any avail; the sense of burning or tingling could not be induced. Under these circumstances Dr. T. says, that we have no reason to expect any benefit. Whoever therefore gives a trial to his remedy ought carefully to attend to the test which he has pointed out as indicative of the operation of the drug. Three cases of heart affection, in which Dr. Turnbull thinks the veratria has been of decided advantage, have been submitted to our inspection; but the data which have hitherto been furnished, are as yet quite insufficient to warrant us in affixing the stamp of our testimony to the correctness of his opinion. The patients indeed confessed that the cardiac distress was always relieved whenever the effects of the veratria were induced. We willingly give credit to this; because we are satisfied that the medicine exerts a very peculiar effect as a counter-irritant; and it seems to differ from almost all others in this respect, that its operation is confined solely to the nerves of the part, the bloodvessels being scarcely affected.

It is therefore our decided opinion that veratria is a useful and very potent medicine, in certain nervous affections, and that it deserves to be, and no

doubt will become an established member of the Materia Medica. Few, perhaps, can hope to obtain such wonder-working results as Dr. T. has had the good luck to achieve. Parents are naturally over-fond of their offspring!

As sincere friends of the profession, we deprecate alike the extremes of indiscriminate applause and of incredulous condemnation.

Mr. Cusack on certain Nervous Affections, occurring chiefly in Females.

In our Dublin contemporary for May last, Mr. C. has related some cases of a peculiar form of nervous disease, of which we shall here take a concise notice.

Case 1. Mrs. ———, six months pregnant, solicited our author, by letter, to prescribe for a pain in her right side, from which she was never free, and describing it as dull in general, but sometimes acute, and shooting towards her shoulder. She had applied leeches, and used mercury, besides cupping and blistering, without relief. These considerations induced Mr. C. to view the complaint as neuralgic, rather than inflammatory, and he prescribed generous diet, with galbanum and blue pill, followed by morning aperients. The pain ceased after a few doses of the pills, the draughts not having been persisted in, as they disagreed. Four years have now elapsed since the first application, and she always finds relief from the pills.

Case 2. Mrs. ———, requested our author to prescribe for one of her domestics, who had fallen into a low state of despondency—was incapable of exertion—had a pain in her right side, and constant palpitation. Tea and coffee were prohibited—regular exercise enjoined, and the following pills prescribed.

℞. Mass. pil. galb. comp. gr. vij.
Mass. pil. hydrarg. gr. iij. Ft. pil. ij. 3tia quaque nocte sumendæ.

℞. Infus. quassiæ, ʒxij.
Sulp. magnes. ʒjss. Ft. haustus 3tia quaque mane sumendus.

It is quite clear that, in the above prescription, ounces are placed instead of drachms. After some weeks, the female was improved in health, and at the expiration of a year was quite well.

A case of pain in the region of the liver, with palpitation of the heart, is briefly alluded to, and where carb. ferri and valerian were successful. In a fourth case there was distressing pain in the right side, between the ribs and the crista ilii, with frequent headachs. It disappeared by taking ten grains of carb. ferri, a scruple of valerian and five grains of soda three times a-day. She derives great advantage also, from the galbanum and the blue-pill, with bitter aperient infusions.

In a fifth case, a poor dispensary female, of intemperate habits, there was great pain on the right side of the spine, between the ribs and crista ilii, which resisted the usual modes of treatment. She was cured by 50 drops of muriated tincture of iron, thrice a-day, in a glass of valerian infusion.

The sixth instance adduced was that of a young girl, who had severe headach of some months' duration, resisting aperients, issues on the crown of the head, &c. She was cured by small doses of blue-pill, with galbanum, quassia, and sulphate of magnesia.

The foregoing cases, selected from a great number, observes our author, exemplify diseases of a nervous character, amenable to mild treatment, but aggravated by severe measures. The hypochondriac pains are frequently considered as indicative of inflammation of the subjacent viscera, and treated by bleeding, mercury, purgatives, &c. by which the unfortunate sufferers are rendered worse. When the head is affected, the patient is often put to great and unnecessary torture, by setons, blisters, &c. Females are far more liable to these affections than males. Much assistance in forming a diagnosis is to be derived from the habits of the patient. Females confined to the house, at their needle, as milliners in large cities frequently are—who drink much tea, with

little relish for other food—when complaining of such affections, may be generally considered as labouring under these nervous and anomalous disorders. Nevertheless, it should never be forgotten that such individuals are liable to inflammatory affections, and that a mistake on the wrong side might be of bad consequences. It will, therefore, be prudent to begin with gently depletory measures, as preparatory to the tonics or sedatives, by which we shall be able to feel our way, and run no risk. We recommend an especial perusal of this highly practical paper to our brethren at large. We have been able to give but a very brief sketch of it here.

SPURIOUS MELANOSIS OF THE LUNGS.

In No. 559 of the Lancet, Dr. Marshall has published two cases of this kind, which he thinks occur more frequently among coal-miners than to others. We shall abridge some of these cases.

Case 1. A man, aged 68, a coal-miner from boyhood, had enjoyed good health till within the last seven years, during which he had cough, occasional dyspnœa, with (latterly) purulent expectoration. He presented all the symptoms of phthisis in March, 1831; and in Dec. of the same year, when he came regularly under Dr. M.'s care, the expectoration was of a deep black colour, resembling printer's ink. The quantity was immense, sometimes amounting to two English pints in the 24 hours. The stethoscope, at this time, indicated well-marked cavernous râle under the left clavicle, with total want of respiratory murmur in the left lung.

He lingered till June, 1833, and was at last carried off by diarrhœa. On examination post-mortem, the glands under the sternum were observed to be of a black colour, and so were the lungs on both sides; but the left lung was greatly disorganized, being converted into an immense cavern, traversed by bands of pulmonary structure. There were several small excavations in the other lung, and the excavations, on both sides, contained considerable quantities of the melanotic matter above-mentioned.

Case 2. A collier, aged 62, had been affected for many years with chronic rheumatism, together with occasional attacks of dyspnœa. In January, 1833, he was affected with cough and palpitation, as also dyspnœa, but continued at work till June, when his symptoms became so aggravated, as to compel him to give up labour. Some of his expectoration was collected, and was found to resemble a mixture of lamp-black and mucus. The stethoscope detected mucus and subcrepitating râles pretty generally in the right side. The left was without respiratory murmur. He died in January, 33, with the usual symptoms of phthisis.

Dissection. The glands under the sternum were filled with black matter. The *left* lung was converted into one immense cavern, nearly filled with an ink-coloured fluid. The right lung: the greater portion of the right lung was deeply stained with the black infiltration, but a considerable portion of lower part was respirable, and floated in water.

Two other cases are alluded to by our author, which, he has no doubt, were melanotic phthisis, but he had not an opportunity of examining the bodies after death. The analysis of the melanotic matter is promised in another communication.

CASE OF FRACTURE OF THE NECK OF THE FEMUR, EXTERIOR TO THE CAPSULAR LIGAMENT OF THE JOINT, WHERE BONY UNION WAS EFFECTED. BY JAMES EDWARD, ESQ. SURGEON, FORFAR.

On the 23d Sept. 1833, Mrs. Addison, aged 76, received on the left groin a stroke from a cow, which knocked her down on her right hip. Immediately thereafter, I was called to attend the patient. After a careful examination, I found that the femur was fractured exterior to the capsular ligament of the joint.

The leg was shorter than the other by nearly three quarters of an inch—the toes were everted—the hip flattened. Distinct crepitus could be felt on rotating the limb, without employing extension; there was also a considerable degree of swelling and tension. She complained of acute pains in the groin and behind the trochanter. The limb was placed in the straight position, according to the method recommended by Desault.

The splints and bandages were taken off at the end of twelve weeks, when firm bony union was found to have taken place. The natural length of the limb was preserved. For several days after the accident, smart febrile excitement continued, requiring diaphoretics and opiates. Acute pain in the hip and groin was complained of for several weeks. These symptoms, however, gradually disappeared, after which she became easy and comfortable. Her general health did not suffer much from the long confinement. This case proved more than usually successful, for in six months after the accident she could walk with perfect ease, without the assistance of crutches.

DROPSY CURED AFTER TAPPING.*

"I had lately an opportunity of satisfying myself as to the recovery of Lieut. G. whose case is adverted to in the 39th Number of the Medico-Chirurgical Review, p. 177, under the head of—'Ascites apparently cured, after Paracentesis Abdominis had been performed 12 times.' He told me he had been in London sometime previously, when he had been seen by Sir William Burnett, as well as yourself, and that, after an examination, you had pronounced him cured. As I have seen him at a later period quite well, and it is upwards of eight months since he left this hospital, he may now be considered as completely recovered. I am not aware of there being any similar case on record, except the one I then alluded to, of 'a patient cured after twelve operations,' adduced by the late Dr. Good in his System of Nosology, p. 438.

I have since had another officer under my care, Mr. M. aged 34, affected with general dropsy in a still greater degree, who has been discharged also with a very fair prospect of ultimate recovery (subject of course to contingencies,) after double the quantity of fluid measured at any operation in the preceding case, had been twice removed by paracentesis. When admitted, on the 9th of January last, the abdomen was enormously distended—the fluctuation distinct—the lower extremities anasarcous, with pain and much tenderness in the region of the liver and spleen—occasional vomiting of a thick chocolate-coloured fluid—and great debility. *Paracentesis abdominis* was performed on the 22d of the same month, with great relief, not fewer than 26 pints of water having been drawn off; and it was repeated on the 11th of February, when a similar quantity was again abstracted. After the second operation, the powers of medicine succeeded in preventing the re-accumulation of fluid in the belly, and in effecting the absorption of the cellular effusion in the lower extremities, &c. and when he was discharged, for the benefit of change of air, on the 12th inst. the abdomen and limbs, with the exception of a little swelling and hardness above the right ankle, were reduced to nearly their natural size, and his general health was greatly improved."

We saw Lieut. G. in London, and every vestige of his complaint, as far as a careful examination could determine, had been removed. If the second case mentioned by our friend, Dr. Dickson, should turn out to be as successful as the first, Dr. D. will have been much more fortunate than his neighbours in general.

Dr. D. informs us that he met with a well-marked case of phlegmasia dolens lately in an unmarried female. He also states that he has been making some trials of the veratria in different

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* Extract of a letter from Dr. Dickson, Physician of Plymouth Hospital, to Dr. Johnson.

affections; and concludes with these words:—"In some cases, it seems to have great power—in others, none."

THE PRINCIPLES OF PHYSIOLOGY, APPLIED TO THE PRESERVATION OF HEALTH, AND TO THE IMPROVEMENT OF PHYSICAL AND MENTAL EDUCATION. BY ANDREW COMBE, M. D. Octavo, pp. 320. London and Ed. 1834.

This little work, though not designed for the medical profession, may prove very useful to the medical student—perhaps to many medical practitioners. Be that as it may it is calculated to prove of eminent service to the reading and more intelligent portions of the public at large. Dr. C. has introduced just as much of descriptive anatomy and physiology as may be usefully applied to the preservation of health, and the improvement of physical and mental education. Most writers on hygiene, at least in this country, have too much neglected the intimate relation that exists between our moral and our physical nature—and how much the cultivation of the mind is connected with organization of body. It is necessary, therefore, to study the peculiarities of the corporeal constitution, in order to chalk out and direct the training of the mind. We see that, by attention to this subject, we can develope the powers in general, and those even of specific organs, in the lower animals, with surprising success. The same rules, in all probability, would apply in the human species. In a late work by Prince Puckler Muskau (though we have no very great opinion of this personage on many points) shews the *moral* effects of military drilling in Prussia. The following passage is put into the mouth of one of the Landwehr of Germany.

"Nobody has more reason to acknowledge this than we landed proprietors, who are surprised to find, in the brave citizen soldiers, the only element of that spirit of subordination and docility which is so nearly extinct in our times. I am satisfied that next to the love, founded on reverence, which our people cherish for their king, we have to thank our military system, that amidst the universal unquietness of Europe, Prussia (by no means from want of diffused intelligence,* like Austria, but in the midst of it) has remained tranquil, sedate, and free from all the violent symptoms of modern thirst after mere change. It was thought that to make the whole population soldiers would be to make them ungovernable. The very contrary is the case—this organization has given them habits of order, discipline, and obedience."†

Dr. C. complains, and justly, too, of the little regard which is paid, in medical schools in this country, to the principles of hygiene, or a knowledge of those causes which modify the functions of our organs in health, and consequently predispose, more or less directly, to diseases. Medical pupils and medical teachers are so intent on the description and treatment of diseases, that they are almost entirely occupied with those subjects, to the neglect of hygiene—or, indeed, of physiology.

But to return to our author. We can only glance cursorily at two or three chapters, out of the nine into which the work is divided—though we certainly recommend the perusal of the whole of the book to the generality of our readers, assuring them that, notwithstanding the pretty full occupation of our time in various avocations, we have managed to read the whole of the publication.

Passing over two or three chapters, in which occur many remarks, important even to experienced practitioners—and especially on the sympathy or connexion between the external surface of the body and the internal organs, we shall halt for a moment on the subject

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* "Light, or intelligence (*aufklärung*,) in the sense in which I here use it, is merely relative, denoting only an extended horizon; it is far enough from *wisdom*, which has generally a tranquillizing, whereas this has a disquieting tendency."

† Tutti Frutti, Stutgard, 1834.

of flannel. Dr. C. appears to attach immense importance to this article of clothing, and there is no doubt but that it is a very great preservative of health, in this and many other climates. Dr. C. condemns the custom of protracting the adoption of flannel till near the approach of winter, considering it to be as necessary in the autumn as in January or February. He quotes Capt. Murray, of H.M.S. Valorous, in favour of flannel in a tropical climate. That officer had been two years on the coast of Labrador, among the icebergs; and, on his returning to England, was suddenly ordered, with his ship and crew, to the West Indies. He directed the Purser to draw two extra flannel shirts and drawers for each man, and institute a daily inspection to see that they were worn. He proceeded with his crew of 150 men to his station, visiting most of the West India Islands, and many in the Gulf of Mexico. He returned to England without the loss of a man. Dr. C. does not state how long this cruise lasted; but he attributes this happy result chiefly to the use of flannel. Dr. C. in another place, guards us against making use of insulated facts, as contradicting general principles. We agree with him; but neither should a few cases of the above, or of any other kind, be too much relied on in support of these said general principles. If Dr. C. had ever broiled under a tropical sun, he would have remembered the almost insupportable exhaustion of flannel, and he would probably have advocated the use of calico, which has most of the good properties of flannel, without its heat and weight. Nevertheless the whole work is written with great judgment and good sense. It is, however, impossible for us to give an analysis of it, on account of its popular tendency. An extract or two will suffice as specimens. One of the most instructive chapters in the work is on the effects of intellectual exercise, moderate, and immoderate. There is great truth in the following passage.

"Nervous diseases from excessive mental labour and exaltation of feeling sometimes shows itself in another form. From neglecting proper intervals of rest, the vascular excitement of the brain, which always accompanies activity of mind, has never time to subside, and a restless irritability of temper and disposition comes on, attended with sleeplessness and anxiety, for which no external cause can be assigned. The symptoms gradually become aggravated, the digestive functions give way, nutrition is impaired, and a sense of wretchedness is constantly present, which often leads to attempts at suicide. While all this is going on, however, the patient will talk or transact business with perfect propriety and accuracy, and no stranger could tell that any thing ails him. But in his intercourse with his intimate friends or physician, the havoc made upon the mind becomes apparent; and, if not speedily arrested, it soon terminates, according to the constitution and circumstances of the individual case, in derangement, palsy, apoplexy, fever, suicide, or permanent weakness.

As age advances, moderation in mental exertion becomes still more necessary than in early or mature years. Scipion Pinel, in adverting to the evil consequences of excessive moral or intellectual excitement, acutely remarks, that while in youth and manhood the wear of the brain thus induced may be repaired, no such salutary result follows over-exertion in the decline of life; '*what is lost then is lost for ever.*' At that period, we must learn to wait for what the brain is willing to give, and allow it to work at its own time: *to attempt to force it is to weaken it to no purpose;* it becomes excited and quickly exhausted when forced to vigorous thinking.'—'Men of exalted intellect perish by their brains, and such is the noble end of those whose genius procures for them that immortality which so many ardently desire.'*

Who can peruse these lines without the fate of Scott instantly occurring to his mind as a practical illustration of their truth? In the vigour of manhood, few ever wrote so much, or with greater

* Physiologie de l'Homme Aliéné p. 177.

ease. But when, on the verge of old age, adversity forced him to unparalleled exertion, the organic waste could no longer be repaired, and perseverance only 'weakened the brain to no purpose,' till morbid irritability became the substitute of healthy power, and he perished by that brain which had served him so faithfully and so efficiently, but which could no longer withstand the gigantic efforts which he continued to demand from it."

We apprehend that it was more the anxiety of mind than the unparalleled exertions which destroyed the immortal Wizard of the North. It is highly probable that, had his circumstances continued prosperous, his desire of fame, and the pleasure of intellectual employment, would have led him to equal, though voluntary exertions. But then he would not have worked "invita Minerva." Every page which he penned would have been a banquet to himself as well as to his future readers. Adversity affects not only the stomach, but the brain and nervous system generally. The stomach, in fact, is only affected secondarily, and through the influence of the brain. No wonder then that excessive cerebral excitement leads to disease. Pinel mentions the case of a young man, distinguished for his talents, and especially for his chemical researches, who was occupied with a discovery which he hoped would lead him to fame and fortune. To accomplish this object the sooner, he shut himself up in his labratory for several successive days, taking a variety of stimulants to banish sleep, and keep his vital powers up to the level of the necessary exertions. At the end of eight days he was seized with furious delirium, followed by a regular attack of mania. Tissot remarked long ago that the incessant contemplation of a single object is more injurious than when the objects of study are diversified. In this case, he adds, "there is *only one* part of the sensorium acted upon, and that is kept always on the stretch; it is not relieved by the action of the other parts, and therefore is sooner fatigued and injured—the same rule holding with the brain as with the muscles, that the exercise which, if divided amongst the different parts of which (the brain) it is composed, will strengthen them, will, if confined to a few, exhaust and impair them." This argument is not affected by the well-known law that regular and daily exercise of any one muscle or class of muscles will strengthen that muscle or class of muscles beyond its neighbours. It is, no doubt, the same with the brain, or the faculties of the mind. Regular attention to any one subject of study, will augment the power of that part of the brain concerned in the faculty so exercised.—There is no question that immense mischief every day results to literary and public men—to students, and to people in business from inordinate exertion of the mental faculties. Sir Humphrey Davy and Sir Walter Scott are recent examples. It is said that Newton's mind was, for a time, disordered by excessive application. The premature extinction of early prodigies of genius, as they are called, is generaly traceable to the same cause.

"The wonder excited by their performances stimulates them to incessant and severe exertion, unrelieved either by adequate repose or by variety of pursuit; and the exhausted brain either sinks at the period of growth, or becomes so much weakened as to be unfit for the same splendour of manifestations. The more limited the sphere of talent, the greater the danger of its being over-exercised; and hence the frequency of nervous affections in musicians, and others who dedicate their lives to the exclusive cultivation of their arts. It is said that Gretry not only ruined his own health, but lost three highly-gifted and beautiful daughters in succession, from over excitement of the nervous system thus induced; and there can be no doubt that the melancholy fate of Weber was greatly hastened by intense application. He continued deeply engaged in musical composition long after his health was undermined; and, even when the hand of death was almost upon him, his avocations pressed so heavily, that he could not help exclaiming, "*Would that I were a tailor, for then I should have a*

Sunday's holiday!" The philanthropic physician will rather be inclined to exclaim, 'Would that mankind would study their bodily structure and functions, and thus learn to preserve longer the health and existence of those whose genius is the source of so many pleasures to the world at large!'"

We could fill many pages with melancholy instances that have come within the range of our own observation, where life has been curtailed—where health has been ruined—and where prospects have been blasted by premature, and we might say preternatural efforts of the young mind, to outstrip their contemporaries in the march of intellect. But we have exceeded our limits, and must conclude with the following short extract, containing excellent advice—too seldom followed by the votaries of science and literature.

"The time best adapted for mental exertion falls next to be considered. Nature has allotted the darkness of night for repose, and the restoration, by sleep of the exhausted energies of mind and body. If study or composition be ardently engaged in towards that period of the day, the increased action in the brain, which always accompanies activity of mind, requires a long time to subside; and, if the individual be at all of an irritable habit of body, he will be sleepless for hours after going to bed, or perhaps be tormented by unpleasant dreams. If, notwithstanding, the practice be continued, the want of refreshing repose will ultimately induce a state of morbid irritability of the nervous system, not far distant from insanity. It is therefore of great advantage to engage in severer studies early in the day, and devote the two or three hours which precede bedtime to lighter reading, music, or amusing conversation. The vascular excitement previously induced in the head by study has then time to subside, and sound refreshing sleep is much more certainly obtained. This rule is of great consequence to those who are obliged to undergo much mental labour."

We have acknowledged that the foregoing advice is good, and often have we attempted to follow it—without success!

The quietude of the midnight hour, when bustling and noisy servants are sunk in oblivious repose—when messages are no longer coming in, nor footmen waiting for answers to notes, invites to meditation and reflection—and is often the only time which a medical practitioner has for holding converse with his professional brethren through the medium of books. On the other hand, the clattering cook, the meddling housemaid, and the tyrant butler, keep every part of the house in agitation and tumult for hours in the mornings:—add to which, the cold room and half-lighted fire, which the servants are sure to keep in the most uncomfortable state for a troublesome master, who comes among them to disturb the morning operations, are not circumstances particularly adapted to contemplation and study in Winter—while the beauty of a Summer's morning tempt one to go out and inhale the morning air, rather than pore over musty books and thrice-told tales. Such have been among the reasons, or, more properly speaking, the excuses for admiring the precept contained in the foregoing extract, while we pursued a course diametrically opposite!—

Video meliora proboque—
Deteriora sequor.

We hope and trust that Dr. Combe's work will be widely diffused among society at large, and that the short and imperfect notice which we have here taken of it, will induce our professional brethren to extend to it their patronage and recommendation.

LIVERPOOL MEDICAL SOCIETY.—ROYAL INSTITUTION.*

At a meeting of the Liverpool Medical Society, (20th March, 1833,) Dr. Reynolds related instances of the separation

* Occasional extracts from the minutes of "public business," from 20th March, 1833, till 19th March, 1834.

of the pelvis at the *symphysis pubis* in Guinea-pigs during parturition; and wished to ascertain whether it was not the case also in women, at that period? The Society was of opinion that such a separation occasionally took place in women, but was referable to disease.

Dr. Reynolds next stated, that he used croton oil externally, as a counter-irritant, in four of five cases, with great effect. In one instance where it was employed, erysipelas of the face supervened. Dr. R. understood that a similar effect had been produced by the remedy, (related in the Lancet,) and wished to know if any member had used croton oil externally, and with what effect? Drs. Carson und Macrorie had used it externally—the effect was purgative. Mr. Van Oven considered it a valuable counter-irritant, and ought not to be undervalued in consequence of erysipelatous inflammation having been produced in the face. He was of opinion, that any irritant applied to a distant part might, in some cases, produce this effect: it occurred, he thought, when the system was under some peculiar influence. Mr. Van Oven related a case wherein he had applied a plaster of soap cerate and ammonia to a diseased bursa in the knee, in this case erysipelas of the face was the result. Three weeks after the disappearance of the inflammation, again applied the plaster to the knee, and erysipelas of the face again was the consequence.

17th April, Dr. Banning in the chair. Mr. Banner related the case of a child, aged 22d months, which had been kicked by a horse on the right parietal bone; fracture with depression, and a slight wound through the scalp, resulted.—Not one bad symptom observed till the 8th day, when there was puffiness of the scalp over the fracture, an offensive discharge, with feverishness. A crucial incision was made, and exposed a triangular fracture, an inch and a half in extent each way. A brain-like substance exuded from the fissure. In a few days, the denuded bone assumed a very unhealthy appearance: the discharge was very offensive. The whole depressed portion of bone was in consequence removed, when *the dura mater was found perforated in three places.* It was now a month since the accident, and no bad symptom has appeared; the wound is nearly healed, and the child quite well in health.

13th November. Dr. Baird related a case, illustrative of the difficulty in diagnosis. He had been called to a married woman, aged 23 years, who complained of great pain in the pit of the stomach, and over the region of the heart. Countenance pale; lips bloodless. Tongue white and moist; pulse 140; breathing weak and oppressed. Tendency to syncope on raising the head. The stethoscope indicated the heart's action as peculiar, "after apparently giving a bound, it was succeeded by a number of rapid beats, which might be compared to a tapping against the diaphragm." Complaint of five week's standing. Dr. B., from the unfavourable state in which he found the patient, expressed his opinion, that she would not survive many hours. The opinion of members present, as to the nature of the disease, was requested, before detailing the treatment adopted. "Was it a case of pericarditis, with effusion; or adhesion?"

Several opinions were hazarded, as to the case. Dr. B. concluded by observing, that after prescribing the following pill, taken every two hours, the interval between the doses being increased until the 5th day, the symptoms gradually disappeared. *Calomel, quinine, and extract of hyosciamus, of each one grain.*

During the Doctor's attendance, the patient proved five months advanced in pregnancy, which accounted for the symptoms, "showing that they were merely those of hysteria."

Dr. Lane read a paper on "Hypertrophy of the Mamma," and related a case which he had successfully treated by iodine, ergot of rye, and mercury. In the case alluded to, there was total suppression of menses: the patient had her mouth made sore by mercury; the iodine was given till the throat became affected; the ergot of rye given in

℥ss. doses, thrice daily for 13 days, when there was a slight discharge, lasting for a few hours. The ergot continued three weeks, with the result of another discharge of nearly a day's continuance, after which up to this date, the patient had a periodical recurrence of the catamenial issue. Her breasts, too, now were reduced more than one half their original size.

27th. Nov. Dr. Carson in the Chair. Mr. Neill related an experiment which he had performed, which shewed, that the optic nerve was permeable by light. Mr. N. said, that if an entire eye (of a bullock or sheep) with the optic nerve divided, within one-eighth of an inch from its entrance into the eye-ball, were held up with the pupil towards a candle, the light would be distinctly seen to permeate the optic nerve—its section forming a luminous spot, circular in shape. Some discussion arose upon this experiment, when the President recommended, that the members of the Society should repeat the experiment for their individual satisfaction. Mr. Banner read a paper "On the Circulation of the Blood in the last stage of Epidemic Cholera," in which he endeavoured to explain the integrity of the mental faculties—and the absence of mortification of the extremities. The former he accounted for by supposing that the bloodvessels of the brain were kept in the state of distention necessary to the discharge of the functions, by the stagnation of the blood (caused by its increased thickness) impeding its return to the heart. The rare occurrence of mortification of the extremities was accounted for by the fact (?) that during respiration the usual quantity of oxygen was not absorbed, in consequence of which carbon was superabundant in the blood, and acted as an antiseptic. The coldness of the extremities Mr. B. sought to explain by the non-absorption of oxygen preventing the evolution of caloric.

Mr. B.'s views as to the absence of mortification were combated by several members. With respect to the cause of the mental faculties continuing unimpaired—Dr. Carson, (senior) thought that it depended on the peculiarity of the circulation within the cranium, the vessels there being enabled to retain their contents in consequence of their exemption from the direct influence of atmospheric pressure.

11th Dec. Mr. Christian in the Chair. Dr. Anderson related a case of inguinal hernia, which he had treated by the recumbent posture, as recommended in a number of the *Archives Generales de Medicine*, for 1831. The patient was a woman, 35 years of age, who after an accession of grief, nine months previously, observed a tumor in the inguinal region, the size of a duck's egg. When Dr. A. saw the patient, the tumor pressed down with great force. The woman was placed in the recumbent posture, and the cure was effected in the shortest space of time indicated (in the foreign periodical referred to)—viz. 31 days. At the expiration of a week, the orifice, which at first admitted the finger freely, was much contracted; and at the end of the month there was no protrusion whatever on coughing—the patient resting on her knees. Three weeks had elapsed since the cure, and the orifice does not now admit even the point of the finger.

Dr. Scott read a paper "On the effect of Sleep upon the Vital Functions," which was classical and philosophical in the extreme, after the discussion of which, the Society adjourned.

23d Dec. Dr. Lane in the Chair. Mr. Neill read a paper in which he related several cases of disease of the retina, with double vision; and in which *strychnine*, both externally and internally, had produced beneficial effects. One case was remarkable for having the double image presented to the diseased eye, even when the healthy eye was closed; this case was accompanied with a rushing sound in the ears, relieved by strychnine, of which four grains were taken in eight days. The diplopia was likewise benefited by the treatment. The accidental death of the patient (from a weight falling upon his head) prevented the final result being ascertained. Mr. N. laid it down as an invariable rule

that the strychnine would do no good unless the IRIS retained *some* degree of mobility.

22d Jan. 1834. Doctor Carson in the Chair. Mr. Windsor enquired whether any of the members present had observed during the epidemic, measles so extensively prevalent of late,—a pustular affection of the lips and inside of the cheeks, and angles of the mouth? In three children of the same family, after going through the measles, were, on the authority of a friend, affected with this pustular eruption; which—and this he considered the remarkable feature of the cases—was afterwards *communicated to both parents!* Dr. Carson met with numerous cases of the kind within the last two months, both in adults and in children, apparently quite unconnected with measles. Dr. C. considered it an epidemic affection. When physician to the Workhouse, had seen it prevail extensively among children, and yielded to calomel and scammony purges which brought away *scybalæ*.

Doctor Duncan said, that during the month of Dec. when the epidemic of measles was at its height, a majority of the children whom he saw were affected sometimes *during* the rubeolar eruption, but more frequently after its decline—*with ulceration of the gums of a gangrenous character*, in one or two cases extending backwards to the fauces and terminating fatally. Many children also had a pustular eruption round the mouth and alæ of the nose. He had observed a few cases unconnected with measles.

Mr. Rogerson read his paper "On the necessary relations of Medicine to the State, or on Medical and Hygienic Police," and after a short discussion, the Society adjourned.

5th Feb. 1834. Mr. Christian in the Chair.—In connexion with a case before the Society, Mr. Christian observed—that in apoplexy arising from narcotics, emetics were useful. Was called to a patient whom he knew to have been taking *ex. sarsaparillæ*, and whom he found with stertor and dilated pupils, &c. the symptoms in fine of apoplexy. It appeared that the patient had taken ℥ij. or ℥iij. *ext. hyosciami* instead of sarsaparillæ. His pulse was soft and very slow; and recovered in a few hours from using emetics. Mr. C. thought the secretions of stomach sometimes caused symptoms of apoplexy:—had himself for some years been subject to dimness of sight, confusion of the senses, indistinct articulation, &c. followed in about half an hour by sickness, a little sour bitterish water coming up. Ultimately discovered, that the symptoms were owing to coffee or green tea, which he was in the habit of taking:—was completely relieved for some years after giving them up.

Dr. Carson, jun. read a paper on the Hibernation of Animals, in which he maintained, 1st. That all the motions of the body, vital and animal, are produced by impressions conveyed from the brain and spinal marrow through the motor nerves. 2d. That the amount of these motions is proportioned to the degree of excitement of the brain. 3d. That there is a degree of excitement of the brain below which it is unable to produce contractions in the muscle of animal life, and to develop the phenomena of sensibility. 4th. That there are degrees of excitement of the brain at which the several muscles of respiration are in order abstracted from the influence of the brain; and a still lower diminution of this excitement which is followed by a gradual abstraction of the muscles influencing the circulation of the blood, viz. the heart and arteries, from the influence of the nervous centres. 5th. That the degree of excitement of the brain depends on the amount of impressions communicated to it by the sentient nerves. 6th. That in the contact of the extremities of the sentient nerves with external objects, is to be sought the only source of nervous energy 7th. That the power in these extremities of receiving impressions is susceptible of increase or diminution. 8th. That the power is diminished by long-continued use, and the influence of certain remedies. 9th. That sleep is caused by the exhaustion of the energy of the brain, below that point at which sensibility ceases to exist; which exhaus-

tion arises, 1mo, from the brain continually distributing through the nerves the energy which is requisite to keep up the ordinary actions, *e. g.* the vital actions: 2do, From the diminished power of the sentient extremities to receive impressions *ab externo:* 3tio, The instinct which leads us to abstract the sentient extremities as much as possible from the influence of external agents. 10. That the power of the sentient extremities to receive impressions, is repaired by the vital processes which are continually going on, repairing defects of the frame, and which processes are last of all abstracted from the influence of the brain. 11. That the degree to which sleep may be carried is proportioned to the previous activity of the animal, and its power of abstracting itself from the influence of external impressions. 12. That the muscles of the palate and glottis being earlier abstracted from the influence of the nervous centre than the other muscles of respiration, snoring is a consequence, which, from the uneasiness it excites when carried to a great degree, is *one* of the limits to the degree of sleep. 13. That the muscles of the right side of the heart and the pulmonary capillaries are earlier abstracted from the diminishing influence of the nervous centres than those of the left side; hence, accumulations of blood in the capillaries of the lungs—a *second* limit to the degree of sleep. 14. that did neither of these limits exist, the excitement of the brain might be diminished to such an extent, that the animal actions, and greater part of the vital actions, might cease altogether, and the only processes which might continue be a low degree of the respiratory process, the organs of which are last abstracted from the influence of the brain; and that such is the condition of the hibernating animal.

19th Feb. Dr. Carson, sen. in the Chair. Dr. Macintyre had met with a curious case:—Account given by the patient (a workman on the railway was this)—after drinking 2*s.* 6*d.* worth of ale, fell asleep in the open air: on awaking, found something wrong with his penis. On examining, discovered a large iron nut (*female* screw, 11 ozs. weight) behind the glans. Endeavoured in vain to remove the nut, even with a hammer and chisel, at the same time fastening his *penis* in a *vice* (!) Twelve hours after applied to a surgeon; the nut had by this time made its way close upon the pubis—the portion intermediate from glans to nut swollen, and as if gangrenous. The surgeon scarified the *penis*, but, being unable to remove the screw, took the man to an *instrument*-maker, who, after fixing the penis in a vice, and after working for several hours with very fine instruments, succeeded in removing the iron: after a portion being removed, the remainder, shewn to the Society, weighed upwards of nine ounces! Dr. M'I. added, that he had reason to believe the story told by the man was a pure invention; and that the individual himself had caused his misfortune.

Dr. Carson, sen. read his paper—"*On the Powers supplied at the Termination of the extreme Vessels, for maintaining and promoting the Motion of the Blood.*" He stated that the only serious objection made to his theory of the suction powers of the heart, was that advanced by Dr. Arnott: that when applied to draw a fluid through incompressible tubes, such as the veins, its only effect would be, to cause the sides of the vessel to collapse.

The theory proposed in the present paper was chiefly to obviate that objection. Dr. C. said that, as the arteries were destined to supply fresh materials to the system, and to convey blood to the veins, the orifice of an arterial capillary must have two communications—one with the particle deposited for the repair of the system, the other with a venous capillary, directly, or through the medium of cells. In like manner the venous capillary was in communication, 1st, with the excrementitious particle which it was about to absorb; and, 2dly, with an arterial capillary, either directly or through the medium of cells. In this intermediate passage between the arteries and veins, Dr. Carson supposed that particles, on being excreted by the arteries, lost the pro-

tection of the vital laws, and becoming subject to the ordinary laws of dead matter, underwent some chemical change, probably of the nature of fermentation, in virtue of which they became expanded in entering the mouths of the venous capillaries: and that this increased bulk of the particles counteracted the tendency of the suction power of the heart, to close the mouths of the veins, which were thus left constantly open by a fresh succession of expanded particles. Dr. Carson farther contended that, in consequence of the great curvature of the capillaries, they were very incompressible, and being kept always filled, and their sides being prevented from collapsing by the expanded blood, this fluid, unable to retrograde in consequence of the current from behind, was withdrawn in the other direction by the suction of the heart. A swelling tide, in one continued wave, thus advanced from the extreme vessels in the direction of the veins, the vis à tergo sending it forward until it came within the influence of the heart's suction. As the vessels always have some connexions enabling them to preserve their tabular form, the objection that the power of the heart would tend to collapse their sides, was in a great measure removed. Dr. C. contended, *on the supposition of the present theory being correct*, that *his theory of venous motion was as firmly established as the theory of the tides.*

Discussion ensued on the reading of the above paper, in the course of which several objections were urged by different members. The principal objection, in Dr. C.'s opinion, was one advanced by Mr. Cocks—that, *if Dr. Carson's theory were correct, the specific gravity of venous blood should be less than that of arterial.* Dr. Carson admitted that this suggestion deserved consideration.

5th March, 1834. Dr. Reynolds in the Chair. Dr. Baird stated the particulars of an obscure and fatal case in a patient of his—a lady, 57 years of age, temperate, but spare, and highly nervous, who enjoyed good health till Dec. last, when she had an attack of inflammation of lungs. During a convalescence of six weeks, was occasionally affected with blindness and headach. An attack of shivering came on, followed by sweatings, recurring for four days, when Dr. B. was called in. Her state then was, pain in the loins and umbilical region—pulse 100, full—tongue moist, clean at edges, slightly furred in centre, with erect papillæ—no headach—pain of abdomen attributed to the severe operation of purgative medicine. Leeches applied, and pills of calomel, opium, and antimony administered, with decided relief. Next day eyes were injected, temples were leeched—bleeding from profuse, and stopped artificially on the approach of syncope. Pulse up to 140—headach—violent action of carotids. Dr. Baird ordered VS. which again induced syncope. Stupor came on in the evening. Head shaved, cold applications; yet she died comatose, 14 hours after losing blood from the arm. The blood was buffed. No post-mortem examination procured. What was the nature of the disease? and had an abscess formed in the brain, or was there serous effusion?

Mr. Banner thought the disease *neuralgia:* thought the depleting measures used had hastened her death. Mr. Neill thought that, from the affection of the sclerotic coat, pain in the loins, and the success of the treatment, V.S. excepted, shewed the disease to be of a rheumatic nature.

Dr. Duncan was unable to draw any other inference from the suite of symptoms detailed by Dr. Baird, than that the case was fever. Dr. Bryce thought the brain was organically affected. [Dr. Baird had omitted a most important circumstance in narrating the case—"on the day when the leeches were applied to the temples, the patient *had a fit resembling epilepsy, and one arm was spasmodically contracted.*" This was communicated *after* the Society adjourned, to the secretary, Dr. Duncan.]

Dr. Thorburn called the attention of the society to the frequency of deaths which had lately been observed among the aged and infirm. This was the case in some districts of Scotland, where no epidemic was prevalent, but where the season had been unusually variable. Dr. T. wished to know whether the

same observation had been made in Liverpool? Dr. Anderson said that, so far as he had observed, old people had, during this Winter, been unusually free from the diseases to which they were generally subject during that season of the year. Dr. Macintire thought the subject had better be discussed after the publication of the bills of mortality.

Dr. Edwards had been lately called to a female in labour, and found every thing natural; os uteri dilated—membranes protruding—the *head* presenting. The pains being sluggish, desired his patient to get out of bed, and walk about the room. She did so. In a short time, "waters" came away—"pains" strong. Dr. E. made a second examination, and found, to his surprise, a *hand* presenting! It was necessary to turn the child, which he effected; the child's life being with difficulty preserved. As Dr. E. was confident that the *head* presented on the first examination, he suggested the necessity of extreme caution in allowing the woman to leave her bed after labour has commenced.

Dr. Bryce said it was the first time he had ever heard of a woman being desired to get out of bed under similar circumstances. Drs. Thorburn and Anderson, Mr. Rogerson, and other members, thought the course pursued by Dr. Edwards was not only usual, but what was recommended by lecturers, and authors on midwifery. Mr. M'Kee, who had delivered many thousand women, concurred in the observation just made, but doubted if necessity existed for turning the child. In the course of an extensive practice, had never found it necessary to resort to the operation of "turning," in cases of *hand* presentation.

Dr. Thorburn read a paper, entitled "*Notes of an interesting Medico-legal Case of Succession, decided at Edinburgh in* 1833," submitted to the Society with the view of eliciting discussion—whether or not the test required, agreeably to the law of Scotland, as to *the state necessary to enable the new-born infant to inherit*, be not still the most eligible and equitable of any which, in the present state of medical science, could be substituted? An animated and protracted discussion ensued, after which the Society adjourned, Dr. Bryce having previously announced for next evening—a paper "on Diseases usually styled Functional." J. S. T.

THE TRANSACTIONS OF THE PROVINCIAL MEDICAL AND SURGICAL ASSOCIATION—Vol. II.

This volume arrived too late in the quarter to admit of notice in the Review department. We have only been enabled to cast a superficial glance upon its contents; but we think we have seen enough to pronounce it not inferior to its predecessor—the first volume. It must prove a source of high gratification to every lover of our science, to observe the rapid strides in intelligence, energy, and action, which provincial surgeons and physicians have made. Their hospitals and infirmaries are provided with excellent medical schools—their literary and scientific societies are well organized and well attended—and their published transactions now convey to the world the facts which they observe and the experience they acquire. We of the metropolis hail this advance with feelings of satisfaction and delight—we stretch our hands to our country brethren, and greet them as worthy competitors in the race. May they persevere, and show the world the universality of British industry and information.

We shall take this opportunity of singling out some of the shorter papers contained in the present volume, and defer the consideration of the rest till our next. It might appear invidious did we mention individuals, when the mass of the contributors are so respectable; yet we hope that their well-earned reputation may warrant our particularizing Dr. Forbes, of Chichester—Dr. Barlow, of Bath—Dr. Bardsley, of Manchester—Dr. Brown, of Sunderland—and Dr. Conolly, of Warwick, as authors of valuable memoirs and essays, or reporters of interesting facts.

There are three topographical articles,

occupying one hundred and fifty pages —a well-written biographical memoir of the late Dr. Darwall of Birmingham —an article on medical jurisprudence two infirmary reports——and fourteen miscellaneous papers, chiefly occupied with the details of facts.

Our selections in the present instance will be guided, as we mentioned, by the brevity, rather than the value of the contributions. Those which we propose to notice are—the history of a case of lithotomy by the rectum—a case of hydrophobia—a case of turberculous affection of the right kidney—a case of uterine hydatids—a case of foreign body found in the heart of a boy. Our next Number will contain an analysis or critique on such of the remaining papers as appear adapted for those purposes.

I. CASE OF LITHOTOMY BY THE RECTUM. By JAMES DAWSON, Esq. Surgeon to the Liverpool Infirmary.

Robert Cox, æt. 3½, sickly and diminutive, was admitted into the Liverpool Infirmary in Jan. 1822.

He had laboured for six months under symptoms of stone in the bladder. The bony outlet of the pelvis was deformed, the space between the conjoined pudic and ischiatic branches not exceeding one-third of an inch. The course of these branches, to within one quarter of an inch in front of the anus, was nearly parallel; from this point to the tuberosities, their divergence was abrupt, leaving ample space for the anus itself. The urethra was found to be short and very narrow, admitting with difficulty the smallest instrument, every attempt at introducing which was attended with rigors, nausea, and complete prostration of strength. The act of micturition itself was followed by a state approaching to syncope, and by prolapsus ani.

No stone could be detected by the most careful examination, and the boy, after remaining for a few weeks in the infirmary, was sent home. In five months he returned, worse in every respect.

Mr. Dawson now discovered, on passing his finger into the rectum, that about half an inch above the sphincter ani, on the anterior aspect of the gut, a bulging of the membrane existed, and that through it a foreign body, apparently about the size of a large Spanish olive, could be felt. On sounding the bladder, the instrument struck against a stone, which lay in this situation.

The child's health was improved by appropriate means. The irritability of the bladder was relieved by the regular introduction of a gum catheter, and enemata of cold water quieted the mucous membrane of the rectum. In Jan. 1833, he was deemed to have arrived at a proper state for the operation, which was thus performed.

"He was bound by no ligatures. The nurse supported him on a pillow on her lap, in the usual position. A gum lancet, having its anterior edge rounded and very keen, was laid flat on the finger, which, thus armed, and oiled, was introduced through the anus, so as to reach a point a short distance beyond the recto-vesicle pouch, when its edge was turned upwards, and a decided cut made, by drawing the instrument from behind, forwards, in the median line, through the walls of the pouch, and up to the stone, on the hard surface of which, the edge of the lancet was distinctly felt to grate.

I may mention, that the back part of the blade of the instrument was blunted, which allowed the point of the finger to project beyond it, and which was thus at liberty to direct, as well as to execute, the intended incision. After pausing a few moments, to allow time for the retraction of the divided structures, the finger was again passed, when the calculus was felt to be entangled among a mesh of elastic fibres; hence a second section became necessary, in effecting which the speculum was employed.*

* "The employment of this instrument was productive of great torture to the child, and as the degree of stretching to which the mucous membrane was exposed by its presence, was undesirable in every point of view it was instantly withdrawn."

The calculus was now found seated in the upper, or vesical region of the sac, whence, having been displaced by the fingers, it fell into the rectum, from among the valvular folds of which, after eluding the attempt once or twice, it was finally withdrawn with the help of Pellier's double silver wire, which served the purpose of scoop and lever. No blood was lost. The operation lasted nearly five minutes.

The calculus was found to be much smaller than we had been led to expect. I have omitted to state that, during the operation, a quantity of hardened or dried mucus escaped along with the fæces, through the sphincter ani; it resembled, in form, the peeled skin of a small apple, and it struck us, at the moment, that this substance might have been coiled round the lower moiety of the concretion, something after the manner of the cup of the acorn, and might, in this way, have added to its apparent magnitude."

We need not mention the subsequent particulars further than by stating that, on the tenth day after the operation the urine passed in a full stream through the penis, and was never afterwards detected in the alvine evacuations. The child remained in the Infirmary for six months, when he was dismissed. Soon afterwards he died of the epidemic cholera.

It is clear that the operation was adapted to the circumstances of the case, and it is satisfactory that no fistulous communication remained between the rectum and the bladder. Probably the sacculated condition of the latter was favourable to the non-occurrence of fistula. We might take the liberty of hinting to Mr. Dawson, the value of literary compression. The expansive force of narration is great, and requires resolute resistance. The original case is diffused through ten pages.

II. CASE OF HYDROPHOBIA. By R. GRINROD, Esq. of Manchester.

The details of this case, which are given at full length, do not seem to require particular notice. We may simply observe that the patient, a boy, was six years and a half old—that he was bitten over the left eye by a rabid dog, on the morning of Dec. 2d, 1833—that the parents immediately washed the wound, and took him to a public institution, "where, however, no decisive measures were pursued"*—that Mr. Grinrod, hearing of the circumstance on the 4th inst. excised the parts and afterwards applied a strong solution of caustic—that the wound soon healed—and that the symptoms of the disease commenced by an aversion to drink water on the 8th of January.

On the 11th of January he died.

Dissection. The supra-orbital and nasal branches of the fifth pair of nerves, which supplied the parts bitten by the dog, were apparently healthy. No morbid appearances were detected in the brain, nor in its membranes, nor in the spinal chord.

The heart was remarkably firm and contracted, and contained no blood. The lungs were of a dark colour in some parts, and in others more of a rosy hue. They crepitated as usual, and did not appear to contain mucus. There was no fluid either in the pericardium or the cavity of the chest. The mucous membrane of the trachea, immediately before its bifurcation, was highly vascular. The submaxillary and sublingual glands were much enlarged.

On opening the pharynx, it was evident that this part had been much affected during life. The greater portion of its inner surface was intensely inflamed, and terminated in a defined line opposite the cricoid cartilages. The velum pendulum palati, uvula, and most parts of the pharynx, shewed considerable development of the mucous glands. The tonsils were slightly enlarged. The œsophagus was greatly inflamed near its termination, and, in one part the mucous membrane was slightly abraded. The whole mucous membrane was so

* We could almost wish that the names of the institution, and the parties concerned, were published. Surely there was culpable and shocking carelessness.

softened, that the slightest touch of the scalp separated it.

The stomach was remarkably contracted and completely empty. Intense inflammatory patches were seen on the rugæ, which were very much developed. The mucous was very thick, and had, in some parts an unusually deep colour. On one of the rugæ was observed a dark spot, about the size of a small shot. The stomach appeared healthy between the rugæ, but had in some places, a darker colour than natural. The mucous membrane of the duodenum displayed intense inflammation also, and the glandulæ solitariæ were exceedingly enlarged and very numerous. The bowels were not particularly examined. The liver was healthy. The gall-bladder contained bile, and the urinary bladder about an ounce and a-half of urine. Kidneys apparently healthy, as, also, the spleen. The whole of the nervous system was remarkably developed.

The par vagum, glosso-pharyngeal, gustatory, pharyngeal, and phrenic nerves, were in a healthy condition. The ganglia of the sympathetic were larger, and appeared of a deeper colour than usual.

Mr. Grinrod adds in an Appendix some particulars respecting the dog, which he had had an opportunity of watching for several hours previous to its death. It was a bitch, about two years and a half old, and was at heat for three or four days previously to her exhibiting symptoms of madness. She was examined after her death, by Mr. Jordan, an anatomical lecturer in Manchester.

"The lungs were of a very rosy colour, but their structure was healthy. The quantity of mucus in the bronchial tubes was small. The mouth healthy, but very parched. The whole of the pharynx was of a deep rosy colour, which terminated in a defined line immediately opposite the cricoid cartilages. The larynx was healthy. A considerable vascularity was manifest at the lower part of the œsophagus, and was continued into the stomach. On opening the stomach, a mass of substance was observed, which had certainly the external appearance of a bird's nest. On being separated, it was found to consist of straw, wood, leather, &c. These materials were in a remarkably dry state. Upon being removed, the mucous membrane was found to be covered, in many parts, with a tough mucus. The rugæ were particularly manifest, and upon their surface were observed, here and there, intense inflammatory patches, and in other parts, black or dark brown streaks, which, in a few hours, became still more perceptible. The external surface of the stomach seemed to be healthy. The par vagum and nerves of the tongue were perfectly healthy. The salivary glands were of the usual colour and size."

Those who are acquainted with recorded cases of hydrophobia will perceive that the appearances found on the dissection of the boy and of the dog, displayed the characters most commonly observed upon similar occasions. Whatever may be the actual nature of the malady, the mucous membrane of the pharynx, œsophagus, and stomach displays the most obvious anatomical alterations. The dread of deglutition is probably dependent upon this condition, and mere reasoning would induce the practitioner to rely most upon remedial measures adapted to remove it. The obvious indications would appear to be local depletion and cauterization, with calomel and opium, a combination which exerts more influence on such kinds of inflammatory action than any other medicinal agent. But experience has proved how inefficient are such theoretical suggestions, and compelled us to acknowledge, that some specific poison introduced into the system defies the powers of what we may term symptomatic treatment.

III. A CASE OF TUBERCULOUS AFFECTION OF THE RIGHT KIDNEY, WITH EXTENSIVE SPINAL DISEASE. By J. PRICHARD, Esq. of Manchester.

Mademoiselle Le Noir, æt. 68, consulted Mr. Prichard in June, 1828, on account of a very acute pain, referred to the sacrum and to the front and middle of both thighs, especially the

right. The pain was nearly constant, and much aggravated by the recumbent posture. There was also considerable pain, on pressure, in the region of the kidneys, and occasional irritation of the bladder, with red sand at times in the urine. The spine was curved, though not angularly. The general health was pretty good.

Previously to 1818, the lady had suffered occasional attacks, which appeared to arise from gall-stones. The commencement of the symptoms described above was in June, 1827, when, after muscular exertion, pain was suddenly felt in the thighs, and shortly afterwards in the sacrum.

Mr. Prichard prescribed some alkaline remedies, and cupped the patient twice on the loins. She then went to town, and from that to Paris, her sufferings being much increased by her journey. In Paris, she voided a large biliary concretion from the rectum. In May, 1829, she returned to Leamington. The pain was very severe, compelling her to remain day and night upon her hands and knees. A considerable angular projection had appeared about the lower dorsal vertebræ. Caustic issues were established in the back. In June she was attacked with fever, and numbness and loss of power in the lower extremities. This latter symptom fluctuated greatly during the succeeding months, and spasms in the limbs were sometimes experienced. From November to February, 1830, there was manifest amendment. In the latter month, a tumour was discovered in the region of both kidneys, that on the right side being circumscribed and more elevated than that upon the left, while on both sides, particularly upon the right, a pulsation synchronous with that at the wrist, could be distinguished. In June, the rectum and bladder became partially paralyzed. In July, pus was discharged from the bladder. On the 20th Sept. the patient died, worn out.

Dissection. There was nothing of a very remarkable character about the liver. The gall-bladder was shrunk into the form of a semi-cartilaginous membrane, puckered up into several elevated folds, within one of which a small gall-stone was lodged. The ducts displayed little peculiarity.

"The right kidney, much enlarged, weighing 12 oz. formed the external tumour. Its adipose and cellular investment adhered firmly to it, and the lower and back part of which shewed marks of recent inflammation, being, in its thickened state, inseparable from the organ itself. The renal arteries, veins, and ureter, were healthy, excepting that the latter contained curdy pus. A section of this kidney exposed a mass of extensive disease, the centre of which had a firmly gelatinous character, and was intersected by white bands. In other parts the appearance was tubercular, more or less advanced to a state of *ramollissement*; its superior portion, from which the discharges of curdy purulent matter from the bladder proceeded, was in a state of suppuration."

The left kidney weighed 4 ozs. It had a small hydatid on its surface The bladder was small, and much thickened.

A considerable protuberance of the spine presented itself, about the last dorsal and first lumbar vertebræ, the spinous processes of which, with that of the second lumbar vertebra, were separated from their bodies, and partook of the morbid changes surrounding them. The first lumbar vertebra was converted into a soft carious mass, having partially the same character of tubercular *ramollissement* as the kidney. The dura mater in the vicinity of this mass of disease, appeared healthy; on opening it, the medulla spinalis had evident marks of recent inflammation, and the pia mater investing it and the proceeding nerves, were much injected. On removing the psoas muscles, several tumours, as large as a walnut, appeared, closely attached to the spine, two on one side and one on the other, having the same character of scrofulous tubercle as the other diseased parts.

The aorta, where it passed over the protuberance of the spine, adhered firmly to it. The vessel was partially ossified.

Mr. Prichard considers the case as interesting upon two accounts: first,

because it shews at what a late period of life scrofulous disease may affect the spinal column; and, secondly, because he thinks the pulsation in the renal tumor was owing to inordinate action of the renal arteries.

It is certainly not common, yet it is not very rare, to see caries of the spine and psoas abscess in persons advanced in life. Our large metropolitan hospitals not unfrequently contain such cases. We confess that we never witnessed pulsation in scrofulous tumors, from augmented action of the vessels supplying them. We have seen pulsating fungoid tumors, as most practitioners possessed of any experience have done. But we do not imply, in opposition to Mr. Prichard, that his was an instance of this description. Yet some of the features wear a resemblance to those of the fungoid disease.

IV. A CASE OF UTERINE HYDATIDS. By W. WATSON, Esq. of Warwick.

The patient, a female, 22 years of age, had been subject to severe periodical headachs, attended with irregular and violent action of the carotids. The menstruation had never been properly established. The last attack was in the early part of the present year. After it had been subdued by appropriate remedies, an issue was established in the leg. The patient was very delicate. She had been married for ten months.

"On the morning of the 27th of May, 1833, I was again summoned to attend her. She was in bed, and complaining of most violent pain in the bowels, and, in short, nearly all round her body, together with a strong sensation of bearing down. On applying the hand to the abdomen during a paroxysm, I found the uterus firmly contracting, and occupying a space equal to that of a pregnancy of five or six months. There had been a coloured discharge, she then informed me, for the last eight weeks. She had no suspicion of being pregnant, nor was she at all conscious of any increase of size, and appeared not a little surprised when, on my directing her to place her hand upon her bowels, she discovered, for the first time, the increase in volume of the abdomen. Under the impression that she was about to miscarry, I administered an opiate draught, and directed the application of cold externally. She had rigors, with accelerated pulse; a white and clammy tongue; considerable thirst; bowels open. On repeating my visit, in half an hour, I was informed that the draught had been rejected. The uterine action was, nevertheless going on vigorously, and, at the moment of my entering the house, something was expelled from the uterus, which an attendant was proceeding to remove, but, from the unexpected and novel appearance of what presented itself to her view, she withdrew in considerable alarm, and requested my immediate attendance.

The cause of alarm consisted of an enormous growth of hydatids, of the grape form, weighing twenty-six ozs. Very little hæmorrhage followed the expulsion of this mass of hydatids; and, although much relief was obtained by it, it was evident, from the character of the pain which continued, and from the external examination of the uterus, that something more was yet to pass. The immense clusters of grape-like hydatids were connected with, and depending from, a substance of considerable extent, having much the appearance of omentum. The portion which had evidently been in connexion with the uterus appearing particularly solid, I divided it with my scalpel, but it consisted of nothing more than a condensed collection of smaller hydatids, mixed with the substance already alluded to."

In the evening, another large branch of hydatids was passed, after which the pain ceased speedily. Some tenderness on pressure of the abdomen prevailing, leeches and salines were ordered, with relief. In the night of the 28th, she had slight shiverings; next day the mammæ were found to be swollen, and a good deal of milk had escaped. A few detached hydatids were voided. After this, the patient advanced steadily to recovery. The secretion of milk remained for some time. A troublesome sanguineous discharge from the uterus yielded to injections of port wine and water.

The following peculiarities in the case, peculiarities distinguishing it from those diplaying the ordinary characters, are succinctly pointed out by Mr. Watson.

"The chief peculiarities of the case before us, consist, first, in the absence of the membranous bag, so strongly insisted upon by some writers, as being *invariably* present. In this instance there was not the slightest appearance of any thing of the kind, neither at the time of expulsion nor subsequently. Neither could it have passed away in a gangrenous state, for during the first weeks after that event, the discharge was so trifling, and at the same time, so pale, that had any thing of the kind existed and passed, it would not have escaped observation. Secondly, after the expulsion of the first cluster, as well as after the second, no hæmorrhage, possessing, in the most remote degree, a violent character, supervened. On the contrary, the discharge was remarkably small in quantity. It is, also, worthy of remark, that the patient herself was perfectly unconscious of any change in her person, which could lead her to the supposition that she was pregnant; and even at the moment of my first visit, on the morning of the 27th, assured me, as already stated, that she had no reason to suppose any thing of the kind existed."

V. SINGULAR CASE OF A FOREIGN BODY FOUND IN THE HEART OF A BOY. By T. DAVIS, Esq. of Upton upon-Severn.

We do not know that we can usefully abridge the following particulars.

"On Saturday evening, January the 19th, 1833, I was summoned to attend Wm. Mills, aged 10, living at Boughton, two miles from Upton. When I arrived, his parents informed me that their son had shot himself, with a gun made out of the handle of a telescope toasting-fork. To form the breach of the gun, he had driven a plug of wood, about three inches in length, into the handle of the fork. The touch-hole of the gun was made after the charge of powder had been deposited in the hollow part of the handle. The consequence was, that when the gunpowder exploded, it forced the artificial breach, or piece of stick from the barrel part of the gun with such violence, that it entered the thorax of the boy, on the right side, between the third and fourth ribs, and disappeared. Immediately after the accident, the boy walked home, a distance of about forty yards.

By the time I saw him, he had lost a considerable quantity of blood, and appeared very faint; when I turned him on his right side, a stream of venous blood issued from the orifice, through which the stick entered the thorax. Several hours elapsed before any degree of re-action took place. He complained of no pain.

For the first ten days or a fortnight after the accident, he appeared to be recovering, and once during that time walked into his garden and back, a distance of about eighty yards: and whilst there he amused himself with his flowers, and even stirred the mould. He always said he was well, and was often cheerful, and even merry. There was no peculiar expression of countenance, excepting that his eyes were rather too bright.

After the first fortnight he visibly emaciated, and had frequent rigors, which were always followed by faintness. The pulse was very quick. There was no cough, nor spitting of blood. The secretions were healthy. He had no pain throughout his illness."

He died on the 25th of February, five weeks and two days after the occurrence of the accident.

Dissection. On opening the thorax, a small cicatrix was visible between the cartilages of the third and fourth ribs, on the right side, about half an inch from the sternum.

The lungs appeared healthy, with the exception of a small tubercle at the right, and at its root, near to the pulmonary artery, a small blue mark in the cellular tissue, corresponding, in size, with the cicatrix on the parietes of the chest.

Half an ounce of serum was contained in the pericardium.

"When an incision was made into the heart, so as to expose the right auricle and ventricle, we were astonished

to find, lodged in that ventricle, the stick which the boy had used as the breach of the gun, the one end of it pressing against the extreme part of the ventricle, near the apex of the heart, and forcing itself between the *columnæ carneæ* and the internal surface of the heart; the other end resting upon the auriculo-ventricular valve, and tearing part of its delicate structure, and being itself encrusted with a thick coagulum, as large as a walnut.

We searched in vain for any wound, either in the heart itself or in the pericardium, by which the stick could have found its way into the ventricle."

Mr. Davis seem puzzled to imagine how the stick got into the ventricle. He supposes that it entered the vena cava, and was carried with the blood into the right side of the heart. The stick would appear to have been about two inches and three quarters in length. There are, therefore, obvious physical difficulties in the way of its getting from the vena cava to the auricle. We know of no better mode of accounting for the fact; and we leave the explanation to such of our readers as can find one.

VI. METHOD OF REDUCING DISLOCATIONS OF THE HEAD OF THE HUMERUS, PRACTISED AT THE BRISTOL INFIRMARY.

This is detailed by Mr. W. F. Morgan, late house-surgeon to the institution.

"As soon as the patient is seen, and the nature of his injury ascertained, he is placed sideways on a common chair, with the dislocated arm hanging over its back, which is padded for the reception and support of the axilla. A reel-towel is then fastened on the arm, immediately above the condyles, by a running noose, with the knot outwards; and its lower part is formed into a loop some way above the ground, to receive the foot of the surgeon. One or two assistants press on the shoulder, much in the same way as Mr. Toogood advises, to fix the scapula and prevent the patient from rising, and the surgeon puts his foot, or, occasionally, his knee, into the loop of the towel, and gradually and unremittingly bears on it with the whole weight of his body. In a very little time, generally within three or four minutes, the head of the bone slips into its place with an audible jerk; the patient's sufferings are moderate, and of short duration, and the use of his arm is soon restored.

In dislocations of long standing, of course other and more powerful means are requisite; but, in several of the cases to which I have alluded, many hours, and even days had elapsed, before the patients applied for relief. I have, likewise, notes of the case of a strong and muscular man, who was admitted with a dislocation of the shoulder, complicated with fracture of the humerus at its middle, in whom the reduction was effected as readily as usual, by binding up the arm with splints, and applying the towel on the outside of them."

In the great majority of recent cases, the reduction is readily, simply, and quietly effected by the heel of the surgeon in the axilla. No towels are necessary—no further preparation is required than removal of the surgeon's boot—no other requisite than a moderately-clean pair of stockings.

We now take leave of this volume of Transactions for the present. There are many articles for notice—some for criticism, in our next. Till that makes its appearance we wish the contributors adieu. It would appear ill-natured to hint a defect on parting, yet censorious readers might complain of prolixity in several of the articles.

ON THE CERTAINTY AND SAFETY WITH WHICH THE OPERATION FOR THE EXTRACTION OF A CATARACT FROM THE HUMAN EYE MAY BE PERFORMED, AND ON THE MEANS BY WHICH IT IS TO BE ACCOMPLISHED. By G. J. GUTHRIE, F.R.S. &c. Octavo, stitched, pp. 47, price 2s. 6d. London, 1834.

This pamphlet is printed for the benefit of the Ophthalmic Hospital, a valuable institution, much wanted and much prized at the western end of the metropolis, and which owes its maturity, if

not its birth, to Mr. Guthrie. We have so frequently introduced this able surgeon to the notice of our readers, that we may proceed, without farther preface, to extract from the pages of the work before us a few of the practical recommendations contained in it.

Mr. Guthrie alludes to Wenzell's remark, that an oculist must spoil a hatful of eyes before he can extract a cataract well. This Mr. G. believes must be the case, if the surgeon implicitly pursues the directions which were given at that period. We can well believe that Mr. Guthrie's hatful is a small one—a low-crowned modern beaver, not admitting of comparison with the huge and capacious structures which formerly surmounted the human head.

We shall endeavour to present Mr. Guthrie's sentiments on some of the points which have excited most discussion amongst oculists, as well as upon those in which his experience may render his opinion valuable.

The following are his directions respecting the manner in which the patient should be prepared for the operation.

"It appears to me, that the same preparation only is required that would be considered necessary previously to the performance of any surgical operation of importance, and particularly about the head. If the patient is in good health, and free from any appearance of disease, nothing more is wanting than a couple of gentle doses of physic, and moderate abstinence during the week preceding the operation. If the patient has lived regularly well, and is disposed to be of a full habit, twelve ounces of blood may be taken from the arm the evening before the operation. If the health is impaired from an irregular mode of life, it should be amended. If a fit of the gout is impending, or is supposed likely to occur, it should be allowed to pass over before the operation is performed; or if the patient has a strong determination of blood to the head, he should be cupped a few days before it is done, in addition to the bleeding recommended on the evening preceding the operation; and the same or greater precautions should be taken when there are indications of a tendency towards paralysis or apoplexy. These are, however, only the ordinary precautions which a well-informed surgeon would take in all other cases. When the operation is to be done on nervous persons, care must be taken on the other hand to prevent any undue depression of strength or spirits."

Mr. Guthrie was formerly of opinion that both eyes should not be operated on at once. He was not so certain of success then as now, and he does recommend the simultaneous performance of the operations, chiefly for the following reasons:—If an accident should occur, and a very vigorous or prolonged after-treatment be necessary, the patient, whatever may be the result, will not readily submit to a second: and, if an elderly person, will not be in a state to submit for a great length of time afterwards; and if that second operation should be unlucky, requiring also a vigorous after-treatment, the loss of health, and ultimately that of life, may be the consequence. Elderly persons can generally bear a vigorous treatment *once* well, and recover from it completely; but they cannot often bear and recover from it *twice*.

The operation of extraction should always be performed with the corneal incision in the direction upwards. Mr. Guthrie's directions for the management of the lids and of the eye are most judicious.

"For the operation on the right eye, the surgeon should place himself behind the patient, and he will usually find it necessary to stand on a stool, in order to raise himself to such a height, that he may readily lean over, and have his hands at perfect ease; and in that position and distance from his own head or chest, which is most convenient to him. The patient's head being a little inclined backwards, and duly, although gently and comfortably supported by the cushion, or back of the chair; the surgeon leaning over from behind, brings the *two* fore-fingers of the left hand over the forehead gently down on the eye-lid, and raises it up slowly and tenderly, so as to fix it ultimately against the upper edge of the orbit; and to be able to retain it there so perfectly with the end of *the*

fore-finger only, that the patient cannot lower it or close the eyelid by any effort he can make. He should also be able to do this and to make a little pressure on the eyeball, in order to fix it at the moment the incision is begun. As soon as the index finger is in this position, the second finger leaves the upper, and lowers the under lid, and fixes it against the edge of the orbit below. The eye is thus completely exposed, and may be almost fixed between the two fingers. To do all this well, requires a certain degree of practice, but which is very easily acquired. It must be done very gently, very tenderly, and without giving pain, or almost uneasiness. The error usually committed, is in using too much force with the extremity of the finger, which gives pain, and makes the patient swerve; and it is an error of such great importance, that the surgeon must practise this part of the operation until he feels that he does it as a matter of art, not of force.

The left eye may be opened, and fixed in a similar manner; or the surgeon standing before the patient, raises the upper lid with the side of the fore-finger of the left hand, and depresses the under lid with the thumb, the hand being over the nose. The pressure of the fore-finger tends to fix the eye at the same time, and to render it as immoveable as possible, and this mode of proceeding I generally adopt in preference, for the left eye."

Mr. Guthrie ably exposes the fallacy of the popular belief, that the eye is a very delicate and a very sensitive organ, and hints that the notion has been propagated and fostered for interested purposes. He observes that such a notion cannot long be entertained, by any who are in the habit of witnessing the performance of operations on the organ. Mr. G. observes, that full exposure of the eye diminishes, in a great degree, its sensibility. He recommends the surgeon to acquire the power of operating, without the assistance of another in steadying the eye; unity of purpose is gained by this. The knife which he prefers is spear-pointed, and blunt on the back.

"The width depends on the maker, my rule being that it shall be as broad as the perfection of the point will admit, and the artist finds that he cannot put the best point on a broad instrument, so that it is essentially rather a narrow knife. It should be of that degree of equal thickness which will admit of its passing through the cornea with the greatest facility, and of its bearing the very best possible point and edge. Every thing in this operation depends on the point of the knife, for the operation must fail either partially or totally, if the point of the knife is not a good one; nothing else signifies so materially, and it must be attended to. The surgeon should never depend on the instrument maker: he should try it on the fine piece of thin leather which ought to have a place in every case of eye instruments. Through this it should pass as through water, without the slightest sound; for if the slightest sound be heard, the knife is unfit for use. Held between the forefinger and thumb, with the little finger resting outside the orbit, the surgeon awaits calmly the steadying of the eye, which should be fixed nearly in the centre, the pupil looking directly forwards. The flat part of the cornea-knife may now be made to touch the face of the cornea as the probe did before, in order to ascertain that the patient is totally free from alarm, and that the eye is steady."

Mr. G. sides with the advocates for the use of belladonna before the operation. It should be applied on the previous evening. After stating that the upper half of the cornea must be divided, Mr. Guthrie makes some lively remarks on the mode in which the knife is to be made to enter it.

"The manner of entering the point of the knife is disputed. The cornea being composed of several layers, constituting a substance of a certain thickness, there is some danger of passing the knife between the layers, and not across the anterior chamber of the eye in front of the iris, if care be not taken that the cornea is fairly penetrated in the very first entering of the knife; which accident may happen, if the anterior chamber is small, and the iris is close to the cornea. In order to avoid

this error, modern authors (I believe, without an exception), recommend that the knife should be entered in the direction of the iris, as if the point were to be carried directly against it, but that as soon as the cornea is penetrated, and the point is in the anterior chamber, the handle of the knife is to undergo a sort of almost imperceptible depression towards the temple by means of which, the blade is to be placed with its flat surfaces parallel to the iris, across the anterior chamber; and it is said that the more quickly this is done, the less chance is there of the escape of the aqueous humour. To all this I object in the most decided manner; the gentlemen who think they do as they say, are, I believe, mistaken; and when they do, they do nothing but mischief. The very turning, or attempting to turn the knife, generally leads to the escape of the aqueous humour, the very thing they want to preserve, and to all the evils it is most desirable to avoid. The knife should in my opinion, be held flat, and the point is to be introduced steadily in the same direction at the proper place; and if the operator can neither see, nor feel when it has penetrated the cornea, and is in the anterior chamber, the sooner he abandons operating the better. If a man has eyes, he can see when the point of the knife has entered the anterior chamber; and if he has fingers he will feel when the resistance offered by the cornea is overcome. The young surgeon, instead of practising these manæuvres, which are worse than useless, should practise on sheeps' eyes, until he has acquired that tact, which will enable aim to know when his knife is in the right place."

Mr. Guthrie alludes, in a forcible manner, to the disposition in the eye to turn inwards at the moment of the incision, and enjoins the utmost coolness on the part of the operator. He dwells very strongly on the fact that the inner layer of the cornea is more tough than the outer, and gives many interesting practical hints to the operator. We regret that we cannot introduce them. For the following piece of information and advice, we must certainly make room.

"When the perforation or penetration is completed, and well done, the patient and surgeon are in a very different relative situation to each other; before it was done, the eye was almost entirely under the control of the patient; after it is done, the eye is almost entirely under the control of the surgeon. It moves with, and of course follows the motions of the knife, and if it has turned inwards, even into the very internal angle, the knife can bring it gently back to its due central position, but not without the loss of the whole of the aqueous humour; and the iris is now seen bulging forwards on the edge of the knife, sometimes even overlapping it. It is at this point that a young operator is confounded, he sees that the iris must be cut, if it cannot be moved out of the way; he thinks he has failed, becomes confused, hesitates, and does mischief, or withdraws the knife and abandons his operation: or if he is a clearer-headed person, he bethinks him of the directions he has read upon this subject, and proceeds accordingly; but he does not succeed one whit the better, and in despair, accuses himself of awkwardness. But he is not, however, the person in error—it is those who wrote the directions. I do not mean to say that these gentlemen have willingly deceived the public, but I do say it is my opinion, that they have told only half the truth. It may be that they did not know the other half, and I have no objection to its being so considered, except that I shall be set down for a discoverer of it, whether I will or not, which I am very desirous to avoid. The directions given in such a case by the Baron de Wenzel, and which the late Mr. Ware said, were the most important in his whole book are, that the cornea must be gently rubbed with the point of the fore-finger, which causes a contraction of the pupil and consequent drawing back of the iris, when the surgeon must complete the operation; but if the iris again fall forward, before this is accomplished, he must keep the finger on the cornea, until it is effected, by which, all danger of the iris suddenly protruding will be avoided. It is also recommended that the surgeon should wait a little, and allow the spasm to subside; and he may wait and rub, and wait

again, and then rub again if he pleases, but he will rarely succeed, unless he does something more, and that is, to raise the eye, or in other words, to draw it as it were out from the orbit, whilst at the same time, he presses the cornea flat against the blade of the knife. This is the other and the best half of the secret, and without he does which, he will not succeed in disentangling the iris. A little consideration will, I think, show why it can only be done in this manner. When the aqueous humour has escaped, the cornea becomes flaccid, and the remaining humours of the eye advance, or are brought forward by the action of the recti muscles, so as to press the iris against it. If the knife is between the iris and the cornea, it keeps these parts asunder, as far as its width extends, but not farther, and as it raises the cornea in every part, it would make a vacuum below its edge, between the iris and the cornea, if the iris did not rise up to fill the space, or if the air did not rush in to do it. This effect of the air, is however counteracted by the muscles acting on the eye with greater power; and the consequence is, that the iris is forced upwards into the vacant space, and the air, if any has entered, is expelled. The iris, can, however, be only elevated or protruded to a certain extent, in consequence of its circular attachment, and of its disposition to contract towards its pupillary edge, or centre. When the cornea is well raised, so as in some degree to raise the eye along with it, whilst, at the same time, the cornea is pressed against the blade, the iris slides from between them, and the operation may be completed, so as to give rise to a highly-successful operation. There is now another secret to be disclosed, of yet greater importance to the young operator, it is, that the effect of an injury to the iris is very greatly overrated, and that if the operation cannot be completed without injuring it, the injury must be committed. The real truth is, that *no good operators* in this great city of London do otherwise. When the iris bulges much over the edge of the knife, it is often not possible to get it quite clear, by any effort, exertion, or dexterity, on the part of the operator. If any man says otherwise, I do not hesitate to say that he is in error, and that his own operations, if he has ever done any, will show it. This being the case, the operator has only a choice of evils, to proceed under any circumstances, or to abandon the operation. This I have done, and the consequence was, that as much inflammation followed as if the operation had been duly performed; and the eye was not upon the whole in a very favourable state for a future operation, the iris being usually a little injured, and the consequent inflammation rendering the pupil less regular and dilateable than it ought to be. If the operation is on the contrary completed, the iris is slightly shaved as the knife advances, or a piece may even be cut out, but the patient will, nevertheless, have a very good eye. The cut in the iris will often not be discernible, unless the upper lid is raised to look for it, and he will see remarkably well, after a very speedy recovery. In fine, I may say the operation is always done in this manner by all those who know what they are about, and the eyes of persons of all ranks who have been operated upon, either in London or on the Continent, prove it. It is possible that the operators may not know what they have done, or how they did it; they may have supposed they were doing one thing, while they were actually doing another. I do not dispute this, or anything else, in the least, but I write to give such information to young surgeons as will enable them to operate successfully, and to know why and wherefore it is that they are successful."

For many valuable observations, and for some particulars respecting a patient on whom De Graefe operated at Mr. Guthrie's request, whilst Mr. G. himself extracted the lens of another, we must refer the curious reader to the pamphlet itself.

There is a circumstance attending the protrusion of the vitreous humour with which young operators should be familiar.

"The lens," says our author, "does not however always come out so easily and regularly. It sometimes happens

that instead of rising up by its upper edge, the vitreous humour, which appears black because it is transparent, and allows the black pigment beneath to be seen through, is perceived pushing forwards between it and the iris. Nothing can prevent a portion of this vitreous humour being protruded or expelled, and no attention need be paid in order to obviate it, for it cannot be done. But attention must be paid to the fact, that its expulsion under pressure will not in general be accompanied by that of the lens, which, having lost its support, will sink down towards the bottom of the eye, and must infallibly cause its destruction by inflammation, if not removed. The surgeon aware of this circumstance, and knowing that pressure of any kind, that even the mere action of the muscles, will cause the expulsion of the vitreous humour without the lens, passes either the large or the small hook under the edge of the lens, through the vitreous humour, which begins to escape when its enclosing membrane is pierced by the hook, the point of which is to be fairly stuck into the under part of the lens, and thus drawn out. A portion of vitreous humour must of course escape, it cannot be prevented, it was inevitable from the first; but the great object, the extraction of the lens, has been attained. If the surgeon hesitates, and does not calmly and steadily introduce his instrument, and hook the lens at once, the vitreous humour begins to escape, the lens sinks, and the eye will be lost, if he does not instantly pass the hook through the pupil, and hook the lens, as he would catch a fish with a landing hook. There is no alternative, it must be done, or the eye will be destroyed."

Mr. Guthrie observes, that the loss of a portion of the vitreous humour has been a surgical bug-bear in the operation. It is an evil, but not a very great one. The principal inconvenience accruing from it is an irregularity of the pupil, which does not in many instances impair vision. If a very small portion of vitreous humour be lost, it is usually followed by severe inflammation; if a large quantity has escaped, the inflammation is usually less. The pupil is apt to be drawn in the direction in which the expulsion or evacuation has occurred, and usually retains more or less of that distortion. The best method of causing its return to its natural place, is to allow the lid to fall, and then to rub it very gently with a soft and wet sponge, for two or three minutes, which often brings it very nearly back to its central position. Another and a greater inconvenience arising from the evacuation of the vitreous humour, is, that a portion interposes between the cut edges of the cornea when they are supposed to be placed in apposition; and whilst it prevents a rapid union between these parts, it also tends, by allowing the newly-secreted aqueous humour to escape, to draw the iris into the line of the incision. If this takes place, the iris adheres to the cut surface, the pupil is permanently and more completely drawn in that direction, and the anterior chamber of the aqueous humour is less perfect, both in shape and appearance, in consequence of the cornea and the iris being brought nearer to each other. This inconvenience arising from the interposition of the vitreous humour between the edges of the incision in the cornea, is to be avoided, as far as it can be done, by carefully removing with the curette any part of it which can be seen, and by gently rubbing the eye in the way directed, in order to cause the pupil to return to its proper place.

The adjustment of the cornea is of course a matter of importance. The eye should appear flat. If it does not the improper fulness arises from some displacement of the vitreous humour, which has not burst the membrane in which it is inclosed, but has been pushed forwards by the action of the muscles of the eye, so as to cause the iris to project; the flap of the cornea is seen lying upon it, and is separated by it from the other edge, with which it ought to be in apposition. Adhesions of the iris and many other evils will ensue unless this be prevented. The vitreous humour must be pressed back into its place by gentle friction on the eyelid covering the ball, by which it may in general be accomplished; but if it will not yield to this treatment, the hook should be introduced through the

pupil, and the membrane of the vitreous humour should be punctured, so as to allow of the evacuation of one fifth of it, when the eye flattens, and the cut edges of the cornea can be brought into apposition. The extent of evil is now known, and can be duly estimated, and guarded against. In the former case it cannot; and of the two evils, the last should always be chosen, inasmuch as it will lead to the recovery of the patient with a good eye, which the other cannot do.

"The eyelid, being at last closed, is to be retained in that situation by compress and bandage; and it is not to be raised, or the eye opened, for a certain length of time, the duration of which is different, according to different writers. It ought to depend on circumstances; the earliest period is on the third day, but the fourth is much better; and if any difficulties have been experienced during the operation, and there is reason to suspect that union has not taken place, the lid should not be raised for at least a week; although the lower lid may be depressed, to enable the surgeon to see the state of the ball of the eye, and to prevent the accumulation of fluids in it. I never open the eye before the fourth day, although I frequently depress and clear the lower lid on the third, and obtain a view of the globe, the whiteness of which is the best sign of the absence of inflammation. When the eyelid is raised too soon, that is before the union of the cut parts of the cornea is complete, the movement of the globe of the eye, which inevitably follows the raising of the lid, often separates the incompletely united parts; pain of a more or less acute nature is soon felt in the line of the incision, inflammation follows, ulceration succeeds and the cornea is only completely united by a slow process, attended by opacity, and generally by a drawing up of the pupil; all of which evils would have been avoided in a great measure by delaying the raising of the lid for two or three days, until the parts were more completely consolidated."

The state of the eye can be ascertained by the appearance of the upper lid, which should be carefully inspected twice daily. Swelling of the lid is a test of inflammation of the organ. On the evening of the operation Mr. Guthrie usually directs the abstraction of from 12 to 16 ounces of blood. It should never be carried so far as to occasion sickness. The eye may be occasionally fomented with a warm decoction of poppies, care being taken that the eyeball is not moved, so as to cause a separation of the divided parts; all remedies likely to cause sickness should be avoided during the course of the treatment, and active aperients for the first two or three days, will, in all probability, be unnecessary, from their having been adopted previously to the performance of the operation. Mr. Guthrie strongly deprecates opening the eye or meddling with it.

Mr. Guthrie has seen one instance of the reproduction of the lens.

The practical nature of the observations contained in this pamphlet, and the candid manner in which Mr. Guthrie communicates the results of his experience to the profession, will more than excuse the length of this notice. Those who take an interest in ophthalmic surgery, (and who, at the present day, do not?) will peruse the quotations we have made with much interest.

RECENT ANATOMICAL AND PATHOLOGICAL PLATES.

1. PRINCIPLES AND ILLUSTRATIONS OF PATHOLOGICAL ANATOMY, &c. By *J. Hope*, M.D. F.R.S. &c. Part XI. May, 1834.
2. ILLUSTRATIONS OF THE ELEMENTARY FORMS OF DISEASE, &c. By *R. Carswell*, M. D. &c. Fasciculus V.—Softening.
3. A SERIES OF ANATOMICAL PLATES IN LITHOGRAPHY, &c. Edited by *Jones Quain*, M.D. &c. Fascic. XI. XII. and XIII.
4. ILLUSTRATIONS OF ALL THE MOST CELEBRATED MEDICAL AND SURGICAL WORKS. Numerous numbers.

THE whole of these works are continuations of a series, to which we have already drawn attention on several occasions. The two last are chiefly of an

anatomical character; that of Mr. Quain is so exclusively. On these we made some particular observations in our last number. We complain of the smudginess of some of Mr. Quain's plates, and we are sorry to observe that the defect is still apparent. That gentleman is not himself the lithographist, but surely he might exercise wholesome control on the operations of his draughtsman. The plates of Mr. Quain will be as dear as Cloquet's, and, so far as we can judge by what have yet appeared, not by any means so good. We observed that we should feel great pleasure in noticing any improvement which might be effected. That pleasure, apparently, is yet to come.

The letter-press of Dr. Carswell's fasciculus has been fully considered in the Review Department of the present number. It only remains for us to offer a brief account of the plates. They equal those which have preceded them, eulogy of no mean character. The first plate contains two figures, one representing the effects of the gastric acid on the stomach—the other, perforation of the fundus of the organ. The second plate exhibits four figures. Three display softening from the action of the gastric acid—the last, pale inflammatory softening of the mucous membrane of the colon. The third plate is also occupied with four figures, the object of which is to portray red and pale inflammatory softening of the brain. The fourth plate is devoted to the delineation of softening of the brain from obliteration of the arteries. It would be difficult to select particular figures for commendation or criticism. They do credit to the skill and the industry of Dr. Carswell.

We were accidently prevented from doing full justice to this part of the able work of Dr. Hope in our Review Department. Our notice of it here must necessarily be imperfect.

It is occupied with the description and the representation of some of the diseases of the uterus, and with those of the spleen, the bladder, and the kidneys.

There are four plates, containing thirty drawings. The outline is distinct; the colouring, which is effected by as light and simple washes as possible, not possessed of that gaudiness and glare, too frequently observed in pathological drawings. Waiving any further attempt at description, which would be inadequate to convey a satisfactory idea of them, we shall endeavour to select, from the descriptive portion, as much useful information as our limited space enables us to introduce.

The following is Dr. Hope's experience on the subject of the corroding ulcer of the uterus.

"Several cases," says he, "have fallen under my observation within the last few years, and the appearances presented after death were,—a dirty-greenish and brownish, sloughy, and shreddy ulceration, with more or less adhesion and hypertrophy of the surrounding cellular tissue and other contiguous textures,—the products of chronic inflammation, propagated to them when the disease was far advanced. I have sometimes seen the ulceration penetrate into the bladder and rectum. On examining the corroding ulcer per vaginam, the erosion may be easily felt and its extent estimated, but no thickening or induration of the uterus can be distinguished. The latter circumstance, therefore, will materially assist in forming the diagnosis from cancer; and further assistance will be derived from the fact that when slight pressure is made with the finger on the corroding ulcer, the patient does not suddenly shrink, as in cancer, but merely complains of a little soreness. The establishment of this diagnosis is important, because, with judicious management, the progress of the corroding ulcer may be retarded even for many years; and the practitioner is enabled to inform the patient that, if she will submit to a few privations, her sufferings will not be great."

After describing scirrhus and encephaloid disease of the uterus, Dr. Hope remarks that there is reason to believe that a slight degree of the malady may sometimes remain in an indolent state even for many years, provided the individual adopt proper regiminal precautions. Eventually, however, the constitution becomes tainted, and the disease then tends unrelentingly to its fatal termination. Any violence done to

the part appears greatly to hurry on this event. A stout, plethoric, and healthy-looking woman of fifty, subject for some years to a slight uterine affection, received a kick, which brought on hæmorrhage and pain. From this time the pulse rarely fell below 110, and there were constant lancinating pains, complete anorexia, vomiting of most ingesta, and, in four or five months, great emaciation. A thickened, ulcerated, and exquisitely painful state of the os uteri can be felt *per vaginam*.

Passing over our author's observations on other affections of the uterus, we may extract his brief account of the diseases of the fallopian tubes.

"Acute inflammation seldom attacks the tubes, except in connexion with inflammation of the uterus and ovaries, already described: it may produce pus, and lead to adhesion and obliteration.

Obliteration of a part or the whole of the tubes may also arise from other causes, as chronic inflammation, congenital adhesion, an accidental membrane stopping the uterine orifice, disease of the fimbriæ, or their agglutination to the ovary or other parts.

When the two extremities of a tube are obliterated, serum or mucus may accumulate within, to the extent even of several pints. The fluid may also consist of pus."

The other only subject to which we can allude, is the formation of cysts in the kidney—an organ remarkably prone to them. When the ureter is plugged up, the pelvis of the kidney is of course distended, the calyces opening into it are distended also, the glandular structure of the kidney is compressed, and ultimately absorbed, and at last a mere multilocular cyst may remain. Of this, most persons accustomed to the examination of dead bodies must have witnessed numerous examples.

"Cysts by *production* are formed by a different mechanism. The cortical substance of the kidney is composed of glandular granules, each of which encloses a sort of cavity or lax web. When the communication of a granule with the tubular substance is obliterated, the granule dilates by the accumulation of the liquid which it secretes, and its walls soon undergo a transformation into fibrous membrane; for distension and compression cause atrophy of the proper tissue of organs, and development of the cellular element. Thus a cyst is formed; and, as the same cause generally operates on a number of granules at once, a number of cysts are the result: accordingly, though we occasionally find only one, two, or three, it is more common to find dozens, and even hundreds, scattered throughout the cortical substance, especially at the surface, the tubular substance remaining exempt from them. Their ordinary size is from a millet seed to a nut, but they sometimes become much larger, and augment the kidney to five or six times its natural volume. The contained matter is various: sometimes a limpid serum, variously tinted; sometimes a muddy, blackish, or yellowish fluid, and occasionally even cretaceous matter,—differences no doubt corresponding, says Cruvelhier, with the numerous modifications which the vitality of the wall undergoes.

When the cysts are numerous, the intermediate renal tissue becomes compressed and atrophous, sometimes to such a degree as to be undistinguishable. A slight quantity remaining, however, will often suffice to carry on the urinary secretion.

There is also another mode in which cysts are produced in this, as in all other glandular organs of granular structure, viz., at the expense of the serous cellular tissue existing in the organ. Cysts of this kind, seldom numerous, occasionally attain an enormous size. The contained fluid is serous, and is scarcely, if at all, coagulable by heat; it may become more or less purulent by inflammation of the cysts. Mr. Cæsar Hawkins met with a cyst containing about five pints of serum, and his account of it affords the best history of the affection in the kidney that has appeared. He denominates it an *aqueous encysted tumour*, and believes it to correspond with the same tumour in the liver."

Here we must bring this short notice to a close, recommending the work of Dr. Hope to the attention of those who desire to keep pace with the pathological knowledge of the day.

II.

SPIRIT OF THE FOREIGN PERIODICALS, &C.

VACCINATION IN ITALY.

Dr. Festler has published in the January Number of the Annali Universali an instructive report on the variolous epidemic which prevailed last year in the district of Albignasego, of which he was medical superintendant. It is most gratifying to observe, that the physicians of all the countries which have hitherto adopted vaccination, are unanimous in the judgment which they have formed of the striking advantages of this great boon: admitting, indeed, that it is not invariably a secure defence against the inroads of small-pox, they are forced by the love of truth to proclaim, that few, very few of those who have been properly vaccinated are susceptible of the infection of the variolous poison; and that moreover (a most important fact) in such as have caught the disease after vaccination, it is almost always mild and easily tractable.

The testimony of Dr. Festler cannot possibly be gainsayed; not one of his vaccinated patents died, and with the exception of a single case, the symptoms were those rather of a varicellous or of a varioloid affection, than of genuine small-pox. Not a few who caught the disease in the natural way fell victims to it. It is a circumstance worthy of mention, that the first case of all, at least as far as Dr. F. could ascertain, occurred in a female who had been vaccinated when young: in her it was varioloid, but as several living in the same house had never been subjected to the cow-pox, they were seized with the actual variola, and as we have said, many died. It appears unnecessary to trace the details of individual cases; the general results only it is of consequence to make known; and first with regard to the different forms which the disease puts on, when it attacked those who had been previously vaccinated. They may be reduced to three; viz. varicella, varioloid, and lastly, the genuine variola. We shall say a few words on each.

1. *Varicella.* The smallest number of cases, and these too were of the mildest form, occurred in the youngest patients, or in those who most recently had been vaccinated. After a slight pyrexia of one, two, or three days' standing, a few red spots, interspersed with small tubercles of the natural colour of the skin, made their appearance on different parts of the body; the feverish symptoms thereon ceased; the spots became vesicles or pustules, and these dried away almost as soon as formed; the tubercles on the other hand seemed like abortive variolous papulæ, and continued for a few days longer, and then gradually scaled off; the exfoliation affecting only the cuticle. In 8 or 10 days at most, from the invasion of the disease, the patients were quite well.

2. *The Varioloid*,—affected chiefly those above 15 years of age or thereabouts; not but that many at and above this period of life exhibited nothing but the mild varicella; all that we intend to say, is, that very few cases of varioloid occurred in those who were younger. As we have already stated, the younger the patients, the less susceptible were they of the infection, and the milder generally was the disease. The greater number therefore of the cases were of the varioloid type. The eruptive fever was more severe, and was frequently accompanied with some irritation in the throat and trachea, as in coryza and slight bronchitis. On the 3d, 4th, or 5th day, a rash, like that of measles or of scarlatina, appeared; this was soon succeeded by distinct papulæ, or tubercles, which in a day or two became vesicular; the lymph of these vesicles, at first clear and like water, gradually thickened and assumed a yellowish colour; some of them remained pointed,

others became flat, or depressed in the centre; the former contained least lymph, and, upon drying, they left behind the colourless tubercles, which we alluded to when speaking of varicella.

The usual period of the desiccation of the pustules was from the 11th to the 14th day, counting from the commencement of the disease. Sometimes, although rarely, a few pustules on the face or chest remained longer, suppurating slowly, but not attended with any febrile reaction. On the 18th day almost all the patients had quite recovered; no pits were left behind, only some faintly-red spots or blotches. The eruption of the varioloid was never distinctly or generally confluent—the colour of the crusts or scabs was an ashen or dirty-yellow colour, when once thrown off, they were never renewed.

3. *Variola.* Only one case of genuine small-pox, after vaccination, occurred; and, although, severe, the patient ultimately did well. In it the third stage, or that of the maturation of the pustules, was well marked; the pyrexia never ceased entirely, and was followed by a regular secondary fever, which continued until the end of the third week.

These three forms of eruptive disease we consider to be produced by the same poison, acting on differently disposed constitutions; each is capable of propagating either of the three forms, so that, from a mild varicella, a person may be infected with a severe variola, and, on the other hand, the worst form of small-pox may communicate only a slight cow-pox; all depends on the susceptibility of the individual exposed, and the susceptibility appears to be proportionate to the interval between the vaccination and the exposure to the infection.

Is not, therefore, the line of conduct which ought to be pursued obvious to all? Whenever a case, whether of varicella, varioloid, or variola occurs, the patient, and every inmate of the same dwelling, should be confined to their house, and prevented, under a severe penalty, from associating with others. It is only by such a rigorous and wholesome enactment that we can hope to crush this many-headed monster. At the same time, vaccination ought to be authoritatively, unconditionally, and exclusively promoted by all governments.

On the subject of *re-vaccination*, Dr. Festler states that he has himself revaccinated upwards of 50 persons, of different ages, from 2 to 32 years. Of these, not above 20 were affected specifically with the virus. Indeed, the phenomena varied so considerably in different individuals, that we may conveniently arrange them in three clases, corresponding somewhat with the threefold division of varicella, varioloid, and variola.—1, Some resisted the operation of the poison altogether, and the punctures on the arm were not more inflamed than if they had been made with a clean lancet; two-thirds of the whole number, as we have just now stated, belonged to this class. 2, In others, the punctures were more inflamed, and on the fourth day or so, a pointed tubercle or small boil appeared on each—the suppuration was quite superficial, and, on the fifth or sixth day, had dried to a rough scab or crust, accompanied with much troublesome itching; in two or three more, the crust fell off without leaving any scar. 3. And, in a third class, the development and progress of the tubercle resembled more nearly, but by no means regularly or perfectly, the maturation and decay of the genuine vaccine pustule. The suppuration did not affect the subjacent cellular texture—the red areola was more circumscribed, and of a paler colour; the pustule was visibly umbilicated, the crust did not exhibit the concentric striæ and circles, it fell off sooner, and the cicatrix was not dotted as after genuine vaccination, but was rather like to the scar of a slight burn or scald. This form may, therefore, be compared with the eruption of the varioloid; the specific action of the virus does not penetrate deeper than the cuticle, whereas, in the true variolous and vaccine pustules, the subcutaneous and cellular texture are equally involved.

In order to satisfy himself that the matter of the imperfect pustule of a

vaccinated person has all the specific agency of genuine cow-pox, Dr. Festler inserted some into the arms of infants who had never been vaccinated, and the consequence was, that perfect and complete vaccine pustules were induced, so that it is quite apparent that the modified effects, in the first instance, depended upon the state of the constitution of the individual, and not upon the quality of the virus. Dr. Festler repeated the operation a third time in the case of his own wife, and the pustule, which, on the former occasion, belonged to the third division above described, was now more irregular and imperfect. as in the second division. The susceptibility has, therefore, he thinks, become less and less, although it may still exist in a small degree. Neither Madame, nor any other of his revaccinated patients, suffered at all from the variolous epidemic, although frequently exposed to its immediate influence.—*Annali Universali, Jan.* 1833.

Thymi in Homine, ac per Seriem Animalium Descriptio Anatomica, Pathologica, et Physiologica, iconibus ad Naturam Delineatis illustrata. Auct. F. C. Haugsted. Copenhague, 1832.

Little attention has hitherto been paid to the subject of the anatomy, healthy as well as morbid, of the thymus gland. With the exception, and we admit that to be no unimportant one, of the late labours of Sir A. Cooper, medical men seem to have almost forgotten that there was such an organ in the body, or, at least, to have quietly acquiesced in the assurance, that all enquiries as to its structure, functions, and morbid changes must be fruitless and of no avail; so powerful is the influence of mere habit in matters of science, as well as in every occurrence of life. It may be useful, therefore to attempt to chase away this incubus of indolent ignorance, and we know of no better way to effect our purpose, than by presenting to the medical public an analytical review of M. Haugsted's elaborate treatise, published two years ago at Copenhagen. As a general remark, applicable to almost all the pathological changes to which the thymus is subject, it may be stated that the symptoms which they occasion during the life of the patient indicate some disturbance of the respiratory functions, and that, associated with this disturbance, there is a considerable emaciation of the body, especially in very young children. Mr. Hood, indeed, in the Edinburgh Journal of Medical Science for 1826, has suggested that hydrocephalus may not unfrequently be occasioned by diseased enlargements of the thymus gland, in consequence of the pressure occasioned on the jugular and subclavian veins, and of the impeded return of the blood thereby induced But this idea is not supported by any data which we can depend upon. In our enumeration of the abnormal conditions of this organ, we shall first arrange those which may be termed "congenital anomalies of formation," or "vitia evolutionis"—such as its entire absence, unusual smallness or largeness, increase in the number of the lobes, &c.; and afterwards the alterations of structure resulting from disease, as inflammation, suppuration, scirrhus, tubercles, tumors, ossification, &c.

1. *Absence of the Thymus.*—No well-authenticated instance of the entire want of this gland, in a child otherwise perfect, is perhaps on record. In anencephalous monsters, its absence is not infrequent. Meckel most distinctly states that, in all the dissections which he has made, he has never once met with an instance of absence of the thymus gland, except in truly anencephalous monsters. Winslow had previously made the same remark, and has alluded to the thymus and the supra-renal gland also, being awanting, in children born without any cerebrum.

In our descriptions, we must carefully distinguish between such monsters as are truly acephalous, or rather anencephalous, and such as are "des acephales faux," or, as they ought rather to be named, "acranial," the anomaly, in these latter, consisting in the absence of the vault of the cranium only, and

not of the cerebrum within. Brodie met with a singular case, in which not only the thymus, but also the heart, pleura, and liver were awanting in a seven-month fœtus, not acephalous.

As to the remark of Wrisburg, that he could not find any traces of the gland in a fœtus, which he considered to be not more than ten weeks old, it is not at all surprising; for the very good reason, that it is only during the third month that the gland begins to be formed.

2. *Increase of the Number of the Lobes.*—The multiplication of the lobes of the thymus appears to be not unfrequent in acephalous monsters. Thus Otto, in his description of such a monster, has remarked—"the viscera of the chest did not exhibit any unusual appearances except the thymus gland, which was found to be composed of five long narrow lobules, and to be of a much larger size than is common." Probably, in all such cases, there is no actual augmentation in the number of the lobules; but only the connecting cellular substance is unusually loose, or is altogether deficient: and as the gland, during the early stages of its formation, is always more or less divided into distinct portions, Meckel is inclined to attribute its lobulated condition in the more advanced being to an arrest of developement.

3. *Extreme Smallness of the Thymus.*—In acephalous or acranial fœtuses the gland is not commonly wanting altogether, but is frequently much smaller than usual. Otto, Meckel, and M. Reynard have furnished examples of this anomaly. Its occurrence is however by no means constant in these monsters; for occasionally the gland has been found exceeding its ordinary dimensions in them. In an acranial fœtus of eight months examined by Otto, and in which the brain was invested with the common integuments only, the thymus gland was composed of three large, irregular, and divided lobes, which occupied all the upper portion of the anterior mediastinum, stretching considerably on each side, and reaching up as high as the lower edge of the thyroid gland;—its colour was reddish-white. In another acranial fœtus the thymus exhibited five lobes of considerable dimensions.—Kilch, in his contributions to pathological anatomy, published at Berlin in 1813, mentions the case of an anencephalous monster, in which the place of the brain was occupied by 10 or 15 hydatids, invested with the integuments only; and in which the thymus was of an unusual volume, while the glandulæ supra-renales were smaller than is common. From these statements we perceive that it is impossible to establish any accurate inferences respecting the uniformity of an impeded or arrested developement of the thymus gland, when the cerebral mass is either imperfectly formed, or has undergone intra-uterine degeneration.

It may however be noticed that, excepting in the cases of acephalous and anencephalous monsters, not one instance is on record of the thymus having been found of extremely or morbidly small dimensions. We have already alluded to the error committed by Wrisberg in his "Descriptio Anatomica Embryonis," of considering the very diminutive size of the gland in a three-months' embryo as an abnormal condition.

4. *Enlargement of the Thymus.*—This pathological state of the gland has been noticed by many anatomists; and the more so, because a certain train of symptoms, indicative of disturbed respiration, very usually accompanies its existence. We shall briefly allude to a few illustrative examples. At the associate meeting of naturalists, held at Heidelberg in 1829, Dr. Kopp read a memoir on one form of asthma occurring in infants, which he traced to an hypertrophy of the thymus gland; the result of this morbid state being a certain degree of compression on the trachea and bronchi. He designated the disease "asthma thymicum," supposing that it had not been noticed by previous observers. But this is quite an error

of ignorance. No words can be more explicit than those of Frank, in his Epitome de Curand. Hom. Morb.

"In asthmate, ut nominant, puerilli, glandulas bronchiales præter sanitatis modum turgidas, maxime vero thymum insigniter tumefactum invenerunt anatomici." The description which Dr. Kopp has given of the symptoms is very copious and full. The dyspnœa, we are told, usually occurs in paroxysms, and these are more frequent when the infant is sucking, or has just awaken from sleep, than at other times. The explanation of this is easy;—during sleep, the inspirations are less profound, and the lungs being therefore less expanded, more room is left for the enlarged thymus. Whenever the child awakes, it suddenly draws in a deep breath; the thymus resists the full dilatation of the lungs; and a paroxysm of dyspnœa is thus induced. A fit of crying has nearly the same effect; and in short, any effort which is accompanied by a sudden and rapid inspiration.

Dr. Kopp alludes to the increase of size, which the thymus very generally acquires in hybernating animals during their state of inaction, and attributes it to the circumstance of the lungs being but very imperfectly dilated, and thereby occupying less than their usual space within the thorax; but the explanation is more ingenious than satisfactory; for it appears that in this tribe of animals the organs which acquire an augmentation of volume during their hybernating sleep, are situated rather out of, than within the thoracic cavity.

The mere circumstance of the thymus being found enlarged in those cases alluded to by Dr. K. is not sufficient in itself to justify the conclusion, that all the asthmatic symptoms are induced by the compression thereby exerted on the respiratory organs.

It is not common to find an hypertrophied state of the gland alone, and unassociated with some lesions of other organs, especially of the heart and lungs. Such being the case, we can readily understand the cause of the respiratory distress; and it may reasonably be disputed, whether the enlargement of the gland is the cause of the result of the other lesions. Caspari and Pagenstecher have been led by their investigations to regard the increased volume of the thymus, in those cases included under Kopp's "asthma thymicum," as induced by, or as the consequence of the dyspnœa, the true cause of which is, in their opinion, an affection of the par vagum. We cannot, however, reasonably doubt that the thymus, when it has acquired a considerable enlargement, must of a necessity offer some degree of impediment to the free dilatation of the lungs, just in the same way as the liver, spleen, &c., when their dimensions are perternaturally increased, give rise to symptoms of distressed breathing. One difficulty, not easily explained, will readily suggest itself to the reader. How is it that the dyspnœa comes on in paroxysms when the exciting cause is not an occasional but a permanent one? Surely there is no reason for believing that the spmptoms are referable to a periodic congestion of humours in the gland. The following case is important, as it shews that an abnormal enlargement of the thymus is not always accompanied with dyspnœa.

A girl, seven years of age, was admitted into the hospital at Copenhagen in October 1830. For the preceding six months she had been afflicted with severe headaches, to which were now added sickness and occasional vomitings. The looks of the child were heavy and dull, and indicated, in connexion with the other symptoms, the existence of hydrocephalic disease. The breathing had been all along, and still continued to be, quite easy and unobstructed. Calomel and digitalis had been exhibited freely; the tartar-emetic ointment applied to the scalp, and a blister to the nape of the neck. No relief was obtained from any of these remedies, and the young patient died on the sixth day after her admission. On dissection, there was found a considerable effusion into the cerabral ventricles. The thymus gland was of unusual dimensions, and was much larger than in any one case of asthma thymicum related by Dr. Kopp himself. It

weighed five ounces. The right lobe, which was the one most enlarged, extended in front of the right lung, to which it adhered as far as the angle of the ribs; it measured four inches in length, two in breadth, and was nearly an inch and a half in thickness. Its texture had become degenerated into a granular or turberculous mass, which presented no traces of any cells or of lobules. The upper lobes of the lungs also exhibited tuberculous changes.—The thyroid gland and the capsulæ supra-renales were normal.

The anatomist Riolan entertained the whimsical idea that the paroxysms of hysteric suffocation were induced by a temporary intumescence of the thymus compressing the respiratory organs; and he explained the more frequent occurrence of such attacks in females than in those of the other sex, by the larger proportional size of the gland in the former. It is surely quite unnecessary to expose the absurdity of this doctrine. According to the researches of some pathologists, an abnormal development of the thymus has in numerous instances induced sudden and fatal suffocation in very young infants; and Schallgrubber is of opinion, that mothers and nurses have been frequently accused of having either wilfully or through negligence caused the death of the child, when the real cause of the accident was what we have just mentioned. If his opinion be confirmed, it must be of great importance in legal medicine to attend to this occasional source of sudden death. Certainly in most of the cases of enlarged thymus there is, as has been already remarked, a coexistent morbid affection of some of the other thoracic viscera; yet, although it cannot be regarded as the sole agent of mischief, it is quite probable that the compression from the magnified gland may act as a direct or immediate cause of inducing the train of morbid phenomena. In several of the examples recorded by Fleischmann, Sandifort, Morgagni, Ribes, Kopp, and others, there was coexistent morbus cæruleus, and dissection revealed an open state of the foramen ovale of the heart;—in other examples, however, the abnormal size of the thymus was not associated with any affection either of the heart or of the lungs. Thus Meckel has described the case of a child two years old, who died of dydrocephalus, and in whom the only trace of thoracic disease was an enlarged state of the thymus. Rust, in his Magazine for 1826, has detailed the particulars of a case of sudden suffocation in a child; it had previously enjoyed perfect and uninterrupted health till within a short time before its death. The earliest symptoms were violent cough and dyspnœa, recurring however at intervals of several days at first, and the fits gradually becoming more frequent and severe; so that towards the close they were renewed several times in the course of an hour;—in one of these the child suddenly expired. On dissection the thymus was found of unusual size, measuring three inches and a half in length, and one and a half in breadth. Its texture was firmer and more solid than natural, and it was so situated, that it might have exerted considerable pressure on the arterial innominata. Dr. Eck, of Berlin, has described in the same journal the case of his own child, which died of what he considered to be the "asthma of Dr. Millar." The symptoms were nearly the same as Dr. Kopp has enumerated as characteristic of the "asthma thymicum." After death, the gland was found to be much hypertrophied, and to have pushed the lungs to the posterior part of the thorax. The heart, lungs, and air-passages were healthy; and no effusion existed within the cranium. In our own practice, we (the Rev.) met with a case not long ago, which, as it has reference to the present subject, may deserve to be recorded here.

A fine, plump, well-formed child, about 18 months old, suddenly expired in a fit of convulsions. There had been six or eight similar attacks before, occurring at intervals of one or two months. They were attributed to the irritation of teething, and had generally soon given way to the continued application of a stream of cold water on the head, while the feet and lower part of

the body were immersed in a warm-bath. No symptom of disturbed respiration, except a very slight croupy noise occasionally, had at any time been noticed.

On dissection all the abdominal and thoracic viscera were found presenting a most healthy appearance; the thymus gland however was of an unusual size, measuring about four inches in length, and weighing at least 2½ or 3 ounces. No trace of any cerebral disease could be detected.

But it is not in young children only that an hyperthrophied state of the thymus has been discovered; it has been met with occasionally in adults and in old people; sometimes along with, at other times without, an affection of the heart or lungs. Unfortunately the descriptions of authors on this topic have been exceedingly vague and unexplicit; the texture of the enlarged gland is seldom specified, and we are left in utter uncertainty whether the organ had merely retained its infantile condition, or whether it had assumed other appearances from a more late deposition of new matter, (perhaps in proportion as the respiratory disturbance increased,) or lastly, whether the suspected enlargement was not in reality a morbid growth merely occupying the site of the thymus.

In the beginning of the last century Cowper and Budœus recorded two cases which occurred in men who were about 30 years of age. The particulars of one of these are the following. The patient had laboured under dyspnœa from his infancy, and at length he died quite suffocated.

The pulmonary parenchyma was found studded with tuberculous deposit; the thymus gland had acquired an immense size, was indurated, scirrhous and cartilaginous, in part resembling the texture of a scrofulous or steotomatous tumour: it adhered very strongly to the large vascular trunks; occupied all the upper portion of the thoracic cavity, and had very obviously presented a great impediment to the free dilatation of the lungs. The heart was enlarged, and the pericardium was found distended with fluid.

Meckel (primus) describes the history of a soldier, 26 years of age, who had long suffered from paroxysms of dreadful anxiety and dyspnœa: at first their recurrence was at considerable intervals, but afterwards they became much more frequent. In the upper part of the cavity of the anterior mediastinum there existed two large lobes of the thymus; each of these was three and a half inches long, and from six to ten lines in breadth; their texture was nearly the same as in the fœtus: they were cellular, and might be distended by blowing air into them; several considerable sized arteries and veins derived from the internal mammaries and inferior thyroids were distributed upon their substance: their colour was a reddish white; very little adipose matter existed in the surrounding cellular substance. Tozetti in his "Raccolta di Opusculi Medico-practici, has recorded a case in which the thymus was found of extraordinary dimensions. The patient, a countryman, 57 years of age, had laboured during 20 years under occasional dyspnœa, the paroxysms had become gradually more frequent, and had been accompanied with dropsy of the chest and abdomen. The thymus measured four inches in length, three in breadth, and two in thickness; and its weight amounted to nine ounces. The texture was more solid and fleshy looking than is natural. To this enlarged mass there adhered a smaller tumor, which seemed to be of a scrofulous character. Tozetti attributes the dropsical effusions to the compression which the enlarged thymus exerted on the arterial and venous trunk. Hufeland, in his Journal of Practical Medicine, for the year 1806, has related a case of fatal angina pectoris, in which the only morbid lesion detected after death was an enormous fatty-like enlargement of the thymus gland, which occupied the whole of the anterior mediastinum.

5. *Inflammation of the Thymus—Thymitis.* It must be acknowlenged that this disease has seldom been ascertained, or even suspected during the life of the patient; but the occasional

occurrence of collections of purulent matter being found within its substance is sufficient to prove the existence of an antecedent phlegmasia. Sauvages indeed has enumerated in his nosology the symptoms which he considered as pathognomonic of this state; these are, a certain degree of impediment to deglutition and to speech, vomiting after eating, dyspnœa, and the external appearance of a tumefaction at the lower part of the neck. Portal, in his edition of Lieutaud, mentions the case of a child, two years of age, who died of convulsions. On dissection there was found an effusion into the pleura and pericardium; the thymus was prodigiously increased in volume, and on cutting it through a large cyst full of a blackish sanies was discovered. But the far greater number of examples of suppuration occurring in the substance of the thymus gland have been preceded by the existence of tuberculous matter, which very generally at the same time is found in the texture of the lungs. This tubercular degeneration is most commonly met with in strumous children; the substance of the gland becomes more dense and solid, and all traces of the cells gradually disappear, so that when the disease has existed for a considerable time, the thymus is found to present the appearance of a conglobate gland. The shameful inaccuracy of medical language has sometimes designated this morbid change by the term "scirrhus."

M. Cruveilhier has seen the thymus in a young infant, filled with tubercles in a state of suppuration, such as we observe in the lungs, in the last stage of phthisis.

Portal has alluded to the frequency of tubercles being found in the thymus and anterior mediastinum in rachitic children; and Lieutaud has recorded several instances of the same disease in adults who had died of consumption, or of other pulmonary affections.

In Haller's disputations we find the case of a young student who, after having suffered for a considerable time from attacks of hœmoptysis, was seized with a severe pain at the lower and anterior part of the neck, accompanied at first with cough, and afterwards with difficulty of breathing and purulent expectoration. On dissection the lungs were found loaded with tubercles, and the thymus had acquired an unusual size, and contained within, a cavity full of pus, and which communicated with the trachea.

6. *Ossification and Calculi of the Thymus.* As in the conglobate and conglomerate glands in different parts of the body, we occasionally find calcareous concretions which have been attributed by many to the induration, or solidification of their peculiar juices, so in the case of the thymus, similar changes have been observed. It is very doubtful, however, whether a truly ossific deposit has ever been discovered in the substance of the thymus, although numerous cases of such a change are on record; for the truth is, that medical writers have frequently applied the term "ossification" to every sort of solid and dense concretion, whatever be its nature and characters. There is however this important distinction between a bony and a calculous deposit, that the former contains in addition to its phosphate of lime, an animal gelatine which is never found in any calculus. And, again, all ossific formations are organised substances, being nourished by their proper bloodvessels, and susceptible of absorption; whereas calculous concretions are completely inorganic. Some authors have insisted too much upon the mere differences of consistence in the two deposits; but this is a very uncertain criterion to distinguish them by. Chemical analysis is the only sure test. Vater, Harder, Hoffman, and others, have recorded examples of calcareous degeneration of the thymus.

CLINICAL RESEARCHES ON THE MEDICINAL EFFECTS OF DIGITALIS.

The reports of medical men on the powers and properties of this potent drug have been strangely conflicting and inconsistent with each other. Cullen

affirmed that the direct physiological operation of foxglove is to weaken and retard the action of the heart and arteries; Dr. Sanders has on the other hand maintained that it first quickens the pulse; and lastly, Orfila and others have not obtained any steady or uniform results, either the one way or the other. Equally discordant have been the statements of different authors respecting the therapeutic effects of digitalis. If we are to believe Drs. Bidault and Currie, it is of great efficacy in all inflammatory diseases;—Clutterbuck considered it as the only specific against fever;—asthma and epilepsy have been said to be under its immediate control; Darwin, Fowler, and Beddoes would lead us to suppose that it is able to cure hæmoptysis and even phthisis, and Hufeland has pompously eulogized it as the most heroic of all anti-scrofulous remedies!! That it possesses beneficial powers in quickening the action of the absorbents, and in increasing the flow of urine in certain cases of dropsy will be disputed by few; but that it has cured encysted dropsies of the ovarium, must surely be the mere fantasy of a fond admirer.

The following researches were instituted, and very carefully pursued, for the purpose of arriving if possible at some satisfactory conclusions respecting the physiological and therapeutic effects of digitalis. It was exhibited sometimes in the form of powder recently prepared, and possessing all the aromatic qualities of the fresh herb; at other times, of a watery or alcoholic extract; and lastly of infusion. The extracts were obtained in the following manner, according to the directions of Professor Soubeiran, the director of the Central Pharmacy of Hospitals. The juice of the fresh herb, procured by expression, was gently heated, for the purpose of coagulating the vegetable albumen; it was then filtered, and evaporated in a water bath to a proper consistence. The alcoholic extract was obtained by slowly evaporating a concentrated tincture of the leaves.

It may be mentioned that most of the following cases have been derived from the clinique of Professor Andral, at the Hôpital de la Pitié.

EXPERIMENTS WITH THE POWDER.

CASE 1. *Hypertrophy and Dilatation of the Heart*—48 *grains of Digitalis in* 6 *days.*

March 24th. A woman, aged 60, was admitted with the following symptoms. Impulsions of the heart very strong; upon any effort of the breathing as in coughing, blowing the nose, &c. they become so violent, that they caused her to faint away, and the extremities to become cold and benumbed. The pulse is 68; the number of respirations in the minute only 14. She suffers much from headach, noises in the ears, confusion of sight, with a pricking sensation in the eyes, pain in the region of the kidneys, and general anasarca of the lower limbs. These symptoms are of three months' duration; but it is nearly a twelvemonth since she had an attack of severe dyspnœa, from which period she dates the commencement of her illness. She was ordered four grains of digitalis to be taken in the course of the day.

25th. Pulse 92—*Respirations* 38—8 *grains of digitalis ordered.*

This quantity was continued every day until the 30th without any very appreciable results on the circulatory and digestive functions. The medicine was then discontinued, and the patient kept upon a light emollient diet. On the 4th of April she was seized with almost constant fits of fainting, and with distressing anxiety. Pulse 96, and the palpitations stronger than ever. Respirations 36. A more decided antiphlogistic regimen was now adopted, but with little relief to the symptoms.

Remarks. No very striking effects were produced on any of the functions in this case. The pulsations of the heart were little influenced; the urine was not affected at all.

CASE 2.—*Hypertrophy of the Heart*—60 *grains taken in* 6 *days.*

A shoemaker, 59 years of age, had suffered much from headach, confusion of sight, and buzzing noises in the ears. He has had frequent attacks of violent palpitations of the heart. Pulse 74—resp. 44.

A small bleeding was practised; the blood was not inflamed, but the action of the heart was somewhat reduced, the number of pulsations being then only 64, and of the respirations 22.

He was ordered three grains of the digitalis, and this dose was increased to 6, and then to 12 grains, on the two following days; no perceptible effects were produced. Sixteen grains were prescribed; the pulse fell four beats, and the palpitations were less violent. On the following day, a scruple divided into five doses, was taken. The patient vomited his food, and experienced a good deal of nausea; but these symptoms ceased during the evening. Pulse 64. The dose was, however, diminished to 12 grains. During the course of the day, he vomited twice and complained somewhat of vertigo. The pulse was 60, and the number of respirations 28.

Remarks. This case illustrates the occasional total inefficacy of digitalis in relieving the symptoms of cardiac disease. It was on the fourth day of the treatment, that any perceptible change on the circulation was first observed, and then this change was very inconsiderable.

CASE 3.—*Asthma—Pulmonary Tubercles—3 drachms and 26 grains in 12 days.*

A mechanic, aged 33, was admitted into the La Pitié Hospital on the 15th March, 1833. He complained of a sharp, teasing pain in the region of the sternum, especially when he coughed, or in any way exerted his lungs. On both sides of the chest behind, a sibilous and sonorous râle could be heard; in front, the respiratory murmur was pure, and percussion elicited a healthy sound. The breathing was sometimes exceedingly distressed, and the expectoration of mucus, tinged with streaks of blood, copious. Pulse 96—respiration 28. This patient had experienced several attacks of hæmoptysis, and had for many years been subject to winter coughs. He was bled, and the pulse fell to 68. One grain of powdered digitalis was ordered, and, on the following day, the dose was increased to four grains; the pulse had fallen to 52, but now was 60. Twelve grains ordered. Pulse 46—breathing more free, and also more pure, on auscultation. Sixteen grains ordered; pulse 41—respiration 16. Twenty grs. ordered; pulse 40. On the following three days, the dose of the foxglove was reduced to 16 grains.

There had been occasionally vomiting and considerable nausea; but these symptoms were by no means constant. The tongue presented a natural appearance, and the cerebral functions were undisturbed; the pulse remained at about 40. As the symptoms gradually subsided, the dose of the medicine was again raised to a scruple per diem, and on the following day, to 30 grains; the patient vomited twice in the course of the night—pulse 40, somewhat irregular in its action. Thirty-six grains ordered; nausea during the whole of the day—pulse 37—respiration 13—cough and expectoration much less. Forty-eight grains ordered; vomiting returned bowels relaxed — pulse 42, irregular as before. The use of the digitalis was now suspended; the nausea, however, and vomitings continued to recur, the pulse remained at 40, and the respiration at 15—tongue natural—cough quite gone, and the patient left the hospital on the 5th of April, much relieved.

Remarks. It will have been observed that, in this patient, the pulse fell on second day of the treatment, when the dose of the digitalis was only two grains; the bowels were then somewhat relaxed, but this relaxation did not increase with the increase of the dose. The stomach began to be disturbed with nausea and vomitings; the pulse fell below 40, and, at the same time, the cough and expectoration abated. These symptoms continued, with little variation, till the completion of the cure. During the whole period, the condition of the tongue remained unaffected, and there never was any epigastric tenderness. Neither the salivary nor urinary secretions were affected.

Case 4.—*Rheumatism—Hypertrophy of the Heart—37 grains in 4 days.*

The patient, a servant, 18 years of age, had for five years, during the Winter months, been troubled with attacks of general rheumatism, and each attack was usually followed by palpitations of the heart. The breathing was always more or less short and distressed; pulse 120, thready—respiration 32—dyspnœa almost constant——the action of the heart sometimes very violent—the dull sound in the cardiac region more extended than natural, and the impulsions of the heart might be heard over every part of the thorax. An incipient bruit de soufflet perceptible; a subcrepitant râle heard on both sides behind.

The patient was bled, and the blood exhibited a partial buffy crust; symptoms not affected—four grains of digitalis ordered. Although the dose was raised first to 9 and then to 12 grains, the action of the heart was not at all abated, and the urinary secretion not increased—indeed, during these two days, a dropsical effusion into the cellular membrane had taken place. The patient was, therefore, bled again, and the blood now presented a stronger crust than before; the digtalis was discontinued. On the following day, there were frequent vomitings and almost constant nausea, and the pulse had fallen to 68, and had become irregular—the respirations were 34. By rest and quiet for a few days, this patient was enabled to leave the hospital.

Remarks. The interesting feature of this case is, that the digtalis seemed to be almost quite inert until the second bleeding, when what are deemed its specific effects were first developed.

Our limits prevent us from detailing the particulars of the other cases in which the powdered digtalis was exhibited; we shall, therefore, merely mention their leading features.

In a man, 38 years of age, who had long laboured under pulmonary emphysema, and, at the period of his admission into the hospital, was suffering from acute bronchitis, accompanied with some symptoms of an affection of the heart, venesection and active purgation were employed with decided advantage, the pulse having fallen from 96 to 68. Eight grains of the foxglove were now ordered, and this dose raised, on the following days, to 12, 20, and 25 grains, with the effect of lowering the pulse to 56. Half a drachm was then prescribed, but, as vomitings and nausea supervened, the dose was reduced to 16 grains. Next day the pulse had risen to 72; the quantity of urine was not increased, and, as the head was somewhat confused, the use of the drug was discontinued. On the day after, the pulse fell to 52, and the number of respirations from 24 to 16. This state or amendment continued for several days, and, when the patient left the hospital, the pulse was slow, and the palpitations less violent.

In a case of phthisis, in a state of cavernous ulceration, the digtalis was administered in doses of 6, 12, 16, and 20 grains, on the four days preceding the death of the patient; the pulse, which was at first 128, rose each day, till it arrived at 160.

In another case of phthisis, the digitalis, was taken for four days, in doses of 8, 12, and 16 grains, when it produced considerable disturbance of the gastric functions, and the pulse became somewhat slower; but in spite of these occurrences, the medicine was continued in larger doses, and the vomitings and nausea, instead of being thereby aggravated, actually subsided, and the pulse remained unchanged. On the following day, however, the stomach distress returned, and the use of the drug was abandoned. The pulse had become somewhat irregular, but scarcely abated in frequency.

Such are the results of the experiments in which the powder of the herb was employed; we shall now briefly allude to the results of the exhibition of the aqueous extract.

To a man 38 years of age, who had long suffered from dyspnœa, without any concomitant symptoms of diseased heart, and when his pulse was 72 and his respiration 20, 16 grains were given; on the following day the pulse was 68. The dose increased to a scruple; pulse 60. The dose 36 grains; pulse 54.

Dose the same; pulse 48. The dose the same; pulse 48. Dose 52 grains; and, on the subsequent day, the dose was raised to 72 grains, but the pulse did not fall below 48 beats. Four drachms of the extract were taken in all.

In a case of chronic rheumatism, the aqueous extract was exhibited, although no symptoms of thoracic or cephalic disturbance were present. It was given at first in small doses of only 2 grains, the pulse being at the time 56. The dose was gradually increased to 4, 9, 12, 20, 32, 40, and 48 grains; and the pulse, on the corresponding days, was 64, 60, 60, 56, 56, 56, and irregular, 56, 44, and, again, 52. The stomach was not disturbed until the fifth or six day of the employment of the medicine.

The third case is one of acute bronchitis, occurring in a man 58 years of age. He was first bled, and then the aqueous extract was exhibited, in doses of 6, 20, and 30 grains; the pulse fell from 64 to 52.

The three preceding examples appear to indicate that the aqueous extract of digitalis exerts a depressing effect on the circulation; but this is by no means constant or uniform, for three other cases are detailed, in which the pulse was either not affected at all, or actually rose in frequency during the administration of the drug. Two of the patients were phthisical—in the first stage of the disease.

The last case recorded is interesting, and we shall therefore, give it abridged.

A young man, who exhibited most of the characters of pulmonary tubercular disease, was treated with the aqueous extract. M. Andral commenced with doses of one grain, and gradually raised the dose to 20, and to 36 grains; the pulse fell from 68 to 52, but the digestive, respiratory, and secretory functions were not at all affected. Indeed, the bowels were all the time exceedingly constipated, (the effect of digitalis is usually to induce a certain degree of looseness.) When the dose was raised to 40 grains, the pulse became irregular, and beat only 48; and it fell four when 50 grains were taken. There was no sickness or vomiting all this time, nor any confusion of head, nor giddiness.

The conclusions to be drawn from the preceding data (the authenticity of which is guaranteed by the name of M. Andral,) are very different from what medical men would have anticipated; but we suppose that most of our brethren will agree with us in asserting, that the generally received opinions as to the physiological and therapeutic effects of digitalis, have been derived much more from books than from clinical investigations or experiments.—*Archives Générales.*

INFLUENCE OF GRAVITY AND OF A DEPENDING POSITION ON THE CIRCULATION OF THE BLOOD, IN HEALTH AND IN DISEASE.

To appreciate properly the importance of these influences, it is proper that we attend for a few moments to the condition of the circulation in different parts of the body in its most frequent attitudes and postures; viz. the vertical or upright, and the horizontal. As the former is the most frequently repeated and longest continued, it may therefore be reasonably believed to exert a more influential operation on the current of the blood than the other. Let us consider the effect of the upright position of the body, (and this, we need scarcely say, includes the sitting, as well as the standing posture,) and we shall at once perceive that the arterial circulation in the inferior extremities is thereby facilitated, while the venous circulation is proportionally impeded. It is not therefore surprising that as the body advances in years, the operation of gravity which is acting constantly, except during sleep, against the venous current, should on many occasions induce engorgement of the veins of the leg, giving rise to varices, and to obstinate ulcers. The circumstance of these being almost peculiar to the lower limbs can be explained only on the principle we have stated. The condition of the circulation through the head is the very

reverse; the arterial current has to ascend against the gravity of the blood, whereas the venous current downwards is favoured by it. Whenever the upright posture is changed for another, say the horizontal, the circulation is very perceptibly affected; the veins of the face and neck become swollen and livid, the carotids and temporal arteries pulsate with greater force, and headache and confusion of thought are often induced. These phenomena are still more rapidly and more strikingly developed if the head is lower than the rest of the body. From this example we perceive that the veins of the head and neck are nearly passive tubes; their contractile power is very small, no doubt from its being seldom called into play; and hence they become easily distended whenever the current of their blood is not favoured by gravity. The contractile power of the veins of the upper and lower extremities is much greater; but in the case of the latter it is often much weakened by their almost continued state of distention to which they are exposed.

Now the circulation through the other parts of the body also is affected, and that too very materially, by the influence of the gravity of the blood, but in different degrees according to their situations and positions. As a general truth we may assert, that whenever the venous circulation is favoured by the gravity of the blood under ordinary circumstances, *there* will congestions be apt to take place, or to be much increased when they have already taken place, by any change of the accustomed position; and the reason of this is, that such veins have but little contractile power to aid in propelling their contents. To return to the subject of the cephalic circulation, is it not a fact of daily observation, that scarcely any one is able to continue long in a strictly horizontal position; the head must be somewhat raised above the level of the body, else unpleasant feelings come on, which not only prevent sleep but may induce dangerous symptoms. It is not improbable that the less free return of the venous blood from the head when we lie down, may have something to do in the phenomena of sleep. And is it not, in part at least, this cause which keeps up the desire for sleep beyond the requisite period of repose; so that the longer we remain in bed, the longer still we wish to remain? It is not unfrequent to observe in elderly patients who have been, from whatever cause, long confined to bed, a set of nervous and cerebral symptoms supervene, and these may resist every means of relief which may be devised. The perceptive and intellectual faculties become dull and inactive; a state of torpor and apathy, of greater or less degree in different cases, comes on; the patient is unwilling to be troubled with anything, as the answering of questions, and so forth; and when he does return an answer, perhaps it is confused and rambling. These are alarming symptoms, and if they continue and become aggravated we can have no hope of saving our patient.

On dissection of such cases we usually discover some degree of encephalic congestion, and perhaps a trifling effusion within the ventricles. We deem it not improbable that the true source and origin of most of the mischief are to be sought for in the altered state of the cephalic circulation in consequence of the more frequent and longer continued decubitus or position in the horizontal attitude. As it is with the head, so it is with other parts of the body, when they are kept for a length of time in a depending posture. In the chest the stasis of the blood is always more considerable in those parts of the respiratory organs which are lowest; and it has often been remarked, that pneumonia, especially when it attacks those who have been long bedridden, very generally affects the base of the lungs. Perhaps some curious and interesting results might be obtained by endeavouring to ascertain the comparative frequency of pneumonia on the left and on the right side, of engorgements of the liver, and of the spleen, in relation to the ordinary position of the patients during their sleep. It is quite possible that the blood may acquire a tendency

to accumulation in particular organs on that side which the person usually assumes while asleep.

In our July No. of last year there is an interesting memoir of M. Piorry, on what he designated "pneumonia hypostatica," or pneumonia arising from a continued state of congestion of certain parts of the lungs, kept up by long confinement in bed. Almost all the cases occurred in old infirm patients admitted into the La Salpetriere, as objects of charity. The mere confinement to bed appeared often to bring on cough and other pectoral symptoms, and these were found to be quite irremediable, if the patients were kept all day in the horizontal position.

Auscultation readily discovered the seat of the pulmonary lesion; the dulness on percussion, and the absence of the respiratory murmur, with the consecutive râles, heard on each side of the spine, shewed that it was the posterior part of the lungs which were chiefly affected; and the post mortem examination confirmed in every case the accuracy of the diagnosis.—[ED.]

The injurious effects of a depending position are well illustrated in the case of the female mamma, when not properly supported, especially during lactation; the veins becomes much enlarged and distended, and not unfrequently severe darting pains are felt through the organ, giving rise to apprehensions of the commencement of serious disease. Then, too, the very common malady of hæmorrhoids is another striking example of the influence of gravity on the circulation of the blood; and the phenomena of many uterine affections also afford testimony to its operation: thus numerous cases of inflammation of the womb are induced by the patients too soon leaving bed, and getting up; the change from the horizontal to the vertical position favours the more easy flow of blood along the uterine arteries, while it retards the returning current in the veins; hence therefore we may readily explain the occurrence of inflammation or hæmorrhage under such circumstances. Every obstetrical physician knows that it is of paramount importance to enjoin a reclining posture in all affections of the female internal organs of generation.

Again; it is the agency of mere gravity which induces a varicose state of the spermatic veins in men, constituting the diseases of varicocele and circocele, and these diseases are invariably aggravated by all causes which are capable of increasing the force of the gravity of the blood, or of relaxing the coats of the bloodvessels, such as exercise, long standing, heat, &c. The use of a well made and well-applied suspensory affords by far the most effectual relief. But the phenomena which result from the influence of gravity are still more apparent and striking in the extremities of the body. If the hand has been long hanging by the side, especially when it is warm at the same time, the veins become full and distended, every minute ramification can be traced, and the whole volume of the soft parts is greatly increased, so that even a feeling of unpleasant tension may be induced: by merely raising the hand and arm, and keeping it for some time in that position, all these appearances vanish, and the member resumes its wonted condition. This affords one of the best examples of the influence of mere gravity on sanguineous accumulations; and we can readily believe that the upper extremities would very often exhibit the effects of such accumulations, were it not for the free and frequent movements of them in all directions:—In the case of the lower limbs, the movements are much more limited, and their position is almost always unfavourable, except during sleep, to the return of the venous blood; whether we are walking, standing, or sitting, the blood has to rise from the feet upwards against the force of its gravity. Hence it is, that varicose distentions of the veins of the foot, leg, and thigh are so frequent, and especially whenever there is any superadded cause which may impede the easy reflux of the circulating fluid—the pressure of the gravid uterus, of an enlarged ovary, &c. is well known to be a common cause of such a malady. When the larger veins of the extremity have been varicose for some time, and especially if the patient neglects the proper means

of relief, the capillary veins become gradually distended and engorged—the surrounding cellular substance becomes inflamed, hardened, and ecchymosed, in consequence of blood oozing out occasionally from the over-distended vessels, and being infiltrated into the cellular parenchyma. It is under these circumstances that the skin not unfrequently gives way, and ulcers, most painful and difficult to heal, become formed. Having thus briefly glanced at some of the most illustrative examples of the influence of gravity, as a cause of inconvenience and disease, we shall now direct the attention of our readers, for a few moments, to certain maladies in which the influence of this agent is conspicuously observed.

In severe cephalic neuralgias, the horizontal position is often found to augment the sufferings of the patient; and the only attitude in which he can find any rest is with his head well elevated. We do not mean to imply that these cases are of an inflammatory nature, yet it is very evident that they are much aggravated by any sanguineous congestion in the parts affected. In phrenitis, otitis, erysipelas of the face, the higher the head is kept raised, the more relief the patient experiences, and when any local inflammation, as of one ear, exists, we uniformly observe that the symptoms are mitigated by lying on the opposite side. Ophthalmia has often been translated from one eye to the other, by the person continuing to lie on the sound side when the inflammation was abating in the other, and this alternation of the seat of the disease may be repeated several times, if the physician's attention be not directed to the real cause. The spreading of erysipelas on the trunk appears to be not unfrequently influenced by the position of the patient; the tendency to spread is generally in a direction to the most depending parts—those on which the patient is resting; and rarely upwards, or to a part more elevated than the spot from which it has started. We have already alluded to the frequency of pneumonic attacks of the lower and back parts of the lungs, in patients who have been long bedridden, from whatever cause; and it is unnecessary to do more than merely again to point to diseases of the rectum, uterus, and male organs of generation, in proof of the influence of position. In the treatment of ulcers of the leg, we are firmly of opinion that repose of the limb, in the horizontal posture, is by far the most important of all therapeutic means; poultices, lotions, and ointments will often all fail, unless this necessary adjunct be attended to at the same time; and even when the patient is not strictly confined, do we not invariably employ what may be termed compensating remedies, viz. strips of adhesive plaster, or rollers from the toes up the whole length of the limb? and the effect of these is well known to be, the taking off the pressure of the superincumbent column of blood from the veins of the foot and leg.

M. Gerdy, about a twelvemonth ago, instituted a number of experiments at the Hôpital St. Louis, on the different methods of treating ulcers; different sets of patients were submitted to the different methods, and each method was employed by itself, in order that the results of each might be justly appreciated. Many of the details have been published in the article "Attitude," in the Nouveau Dictionnaire de Médécine. We shall mention a few of them.

When the limb on which an ulcer existed was kept upon an ascending inclined plane, it was found that the sore became pale, the suppuration was diminished in quantity, and a crust soon began to be formed upon the surface, and under this the healing went on more or less rapidly. If strips of adhesive plaster were used, at the same time that the elevated inclined position was retained, the cure was still more rapid: it was by combining the elevation with the use of adhesive bandages, and the entire repose of the limb, that the cicatrization of the ulcer was most speedily affected. Several cases of severe contusion were treated on the same plan, with very decided success—the contused limbs being retained in an elevated inclined position during the whole period of the treatment; the decrease of the pain, tension, and tume-

faction was sometimes truly remarkable.

M. Gerdy is of opinion that many white swellings of the joints may be very materially benefited, by an application of the principles which have directed his treatment of ulcers. He recommends that the affected limb be kept perfectly quiet and on an inclined plane, so that the foot is considerably more elevated than the thigh. He is not yet provided with the reports of any cases to prove the correctness of his ideas; but in one case of elephantiasis of the leg, treated by elevation of the limb, and compression at the same time, the result was most satisfactory—the subsidence of the enlargement was very striking.—*Archives Générales.*

REMARKS ON CERTAIN MONSTROSITIES.

M. Velpeau has appended to a description of a monstrous fœtus some illustrative remarks, from which we shall extract a few of the more interesting.

Eventration, the partial or total escape of the abdominal viscera from their cavity, is one of the most common monstrosities, after those which are connected with a deficiency of part or whole of the cerebral contents. We find examples of this deformity in almos tall the scientific collections of the last century, and the journals of the present day very frequently record instances of it. M. Velpeau has himself met with two specimens of this anomaly in fœtuses nearly at the full period, and with numerous others, at earlier periods of gestation. One of the two specimens was a twin fœtus, the other fœtus was born alive and perfectly well formed. The monstrous fœtus was acephalous; all the intestines were fairly out of the abdomen, the parietes of which however were defective only in a very small extent; the anus, sexual organs, and the umbilical cord were normally developed.

In the present case, the deficiency of the abdominal parietes was much more considerable; the whole of the protruded mass being quite naked and uninvested; the skin indeed round the edges of the huge rent or gap presented a natural appearance, and extending from this was a thin pellicle, which became gradually more delicate and fine as it advanced on the viscera, with which it seemed to be confounded.—There was no trace of any external sexual organs nor of umbilicus. The only remains of the cord was an irregular stalk, about two inches long, and which, when it reached the right side of the protruding mass, sent off the umbilical vein to the liver; the two umbilical arteries were much shrivelled; one appeared to be quite impervious, and the other admitted with difficulty a pin's point.

It is an obscure, but very interesting question of embryology, to determine by what means a fœtus, imperfect and deformed though it may be, can be supported and developed, when the umbilical cord is either shrivelled, or, in some cases, is altogether obstructed. Some years ago, M. Velpeau presented to the Philomathic Society a monstrous fœtus, which was quite destitute of any umbilical vessels. Such cases, indeed, are by no means rare, and deserve to be most attentively recorded. Perhaps by comparing an assemblage of such, some pervading analogies of structure might be discovered.—*Journ. Hebdom.*

EXPERIMENTS UPON THE SOUNDS OF THE HEART.

M. Majendie having recently drawn the attention of the Academy of Medicine to the above interesting subject, and propounded certain views of his own, which differ most essentially from those usually received, in ascribing the first sound to the shock or impulsion of the apex of the heart during its diastole against the thoracic parietes, and the second sound to the impulsion of the base of the heart during its systole. Professor Bouillaud, who has for many years distinguished himself by his zeal in the promotion of auscultatory medicine, deemed it proper to have recourse

to direct experiments similar to those which Dr. Hope performed on asses.

He laid bare the heart of a strong full-sized cock, having previously satisfied himself by auscultation that its two sounds might be distinctly heard. He then listened to its action at first while enveloped in the pericardium, and then when divested of it; with the naked ear, and with the stethoscope; and not satisfied with one examination, he made several; and the result of these was, that he could always hear quite distinctly the double sound, or tic-tac of the heart, although there was no point of contact between the organ and any part of the thoracic walls. The friction indeed of the heart against the end of the stethoscope caused a particular sound; but this sound (simply one of rubbing) was so very different from the tic-tac of the organ itself, that it is almost quite impossible that they can ever be mistaken for each other. When the heart was cut out, by being separated from its attachments, it continued to beat for a few moments; but these beats of the empty organ were not accompanied with any perceptible sounds.

The preceding experiment was repeated twice upon rabbits with the same results; viz. the sounds of the heart were most distinctly heard, although neither during its diastole nor during its systole could it come in contact with the thoracic walls.

In conclusion, the Professor states that the results of his direct examination of the sounds of the heart have confirmed him in the opinion that the double bruit or tic-tac, which imitates so closely the clinks of a valve, is, in fact, to be attributed to the play of the valves of the heart.—*Journ. Hebdom.*

SOURCE OF ANIMAL HEAT.

The chemical doctrine which attributes this important function altogether to the changes which the blood undergoes during respiration is manifestly unsatisfactory; for how can we explain the pyrexial heat of many patients, whose lungs are almost quite wasted away? How shall we account for the sustained temperature of the bodies of persons who have been asphyxiated in irrespirable gases? Does not any sudden fright or terror chill the body? Do we not burn when the rage of anger seizes us? And what makes us shake like a leaf agitated by the wind when an ague-fit is at hand? How is it that any laborious or long-continued exercise of the mind renders us more than usually susceptible to cold? and that the insane, whose minds are, as it were, in a state of abeyance, can often resist a cold which would benumb others who are in health? It is an every day observation, that palsied limbs, in which the circulation of the blood is as perfect as ever, require external warmth to prevent them being chilled; and in addition to all these proofs of the very immediate dependence, or at least connexion of the process of animal calorification with the condition of the nervous system, it may be stated as a fact of general admission, that the different organs are endowed with heat in proportion to the number of nerves which enter into their contexture.—*Ibid.*

USE OF STEEL IN MENORRHAGIA.

M. Pigeaux very justly remarks that all uterine hæmorrhages do not depend upon an unhealthy condition of the womb; and that not unfrequently they seem to be connected with a general cachexy of the sanguineous system as their inducing cause. This abnormal state of the blood, which in most constitutions indeed is accompanied with dysmenorrhœa, or even with a complete deficiency of the menstrual flow, gives rise at other times, under circumstances which as yet are not well understood, to profuse and very obstinate discharges from the womb. That these discharges are truly menstrual may be readily ascertained by noticing whether they ever coagulate or not; for it is very generally acknowledged that the true catamenial flux does not separate, as blood is wont to do. By attending, therefore to this character, we shall be

enabled to distinguish between menorrhagia and metrorrhagia: and the distinction is of importance in a therapeutic point of view. No remedy has been found by M. Pigeaux so effectual in counteracting that sanguineous cachexy on which menorrhagia so frequently depends as steel; and the preparation which he prefers is the subcarbonate in doses at first of from 2 to 10 grains, and afterwards of a drachm in the course of the day: when the medicine causes cardialgia, or any irritation of the bowels, he combines it with the subnitrate of bismuth, or with calcined magnesia. The steel should be continued for a month or two after the apparent cure.

The high authority of M. Recamier may be adduced in confirmation of M. Pigeaux's statements.—*Rev. Medicale.*

REMARKS ON THE HOOPING COUGH.

M. Blache, in a memoir which lately gained the prize offered by the Medical Society at Lyons, has given a very admirable exposé of this most harassing malady. He very justly considers the hooping-cough as one of the neuroses, and that its seat is most generally in the mucous membrane of the bronchi, and in the extremities of the pneumogastric nerves: he alludes to the very frequent association of the nervous disease with bronchitis and pneumonia; but does not permit himself to fall into the error, which is by no means uncommon in the present day, of viewing these complications as essential, or component elements of the malady: it may, and very often does exist, without any trace of them, either during life or upon dissection.

Pertussis, like the other members of the same nosological family, often defies the scalpel of the most practised anatomist to detect its characteristic and pathognomonic lesions; and we are more indebted for any valuable and practical acquaintance which we have of this disease, to the inquiries of the Hippocratic, than of the Anatomical School of Physicians. While we make this assertion, it is not our wish or intention to deny the frequency of the coexistence of inflammatory complications in the course of hooping-cough cases; and we readily admit that much of the mortality of this disease is attributable to neglected pneumonias (of the lobular character) as well as to convulsions and phthisis.

In the treatment of pertussis, M. Blache pays due attention to the three stages of its course; in the first he recommends the same remedies as are known to be best fitted for the relief of bronchitis: in the second, or spasmodic stage, he praises the use of derivatives, emetics, sedatives, and antispasmodics; the most valuable of which he considers to be belladonna: and the third is best counteracted by tonics, such as the lichen, Peruvian bark, sulphureous mineral waters, change of air, &c.

The following sentence of M. Blache's paper is worthy of especial notice.

"In severe pertussis, as in typhus fever, in cholera, and unfortunately in many other diseases, there is another element, besides that of inflammatory action; the nature of the element may be very imperfectly understood; but it is present; and has a most essential influence upon these intercurrent phlegmasias, which may be made to yield at one point, but only to make their appearance at another."—*Ibid.*

MONOMANIA—PHRENOLOGICAL JURISPRUDENCE.

In 1778, a woman of Konigsberg, in Prussia, was found guilty of the dreadful crime of murdering the child of her benefactor, by cutting off its head: and in 1825, at Paris, Henriette Cornier committed the same crime, on a strange child, which had never given any cause of offence to her, and which she had only seen once or twice before.

In both of these cases, the judges were satisfied that the perpetrators were insane at the time of the murders: the first was sent to a lunatic asylum; but the second was condemned at Paris to perpetual labour, and to be branded with a red hot iron on the shoulder!

In the present day our (the French) magistrates, being better acquainted with the facts on which the doctrine of monomania is founded, are more ready and willing than hitherto they have been, to listen to the system of defence which may be deduced from it. Often (says M. Marc) they are the first to require a medical examination of the culprit with the view of ascertaining the state of his or her mind, in cases wherein formerly not a doubt of the sanity was ever permitted to be held for a moment; and hence it is that in the present day not a few criminal actions are stayed, or altogether superseded by the adoption of such measures as the state of the monomaniac seems to require. This result, so gratifying to humanity, is owing altogether to the exertions of medical men, to whom indeed it is the noblest reward.

In M. Marc's memoir are related several cases of that variety of monomania in which the individual is instigated to attempts on the life or property of others, and yet the mind in other respects appears to remain quite sane. The incendiary monomania has particularly attracted the author's attention; and his remarks and observations are very interesting; but is it quite reasonable to comprehend in this species of insanity the case of a young girl, who, we are told was prompted to the commission of the crime of arson, "less by the effect of an incendiary propensity, than of certain practices and manœuvres which had been used to disturb her reason, by leading her to believe that she would do a meritorious action, and one agreeable to Heaven, and assuring her of the justness of her actions by the most solemn oaths!"

Thanks to our last revolution (denominated by M. Marc, "a political regeneration") that the capital punishment which would formerly have been awarded to this poor girl is now commuted to that of perpetual confinement." Those who are interested in medico-legal enquiries, will be repaid by examining M. Marc's memoir in the October number of the *Annales d'Hygiene et Med. Legale.*

MEDICAL NOTANDA.

The following short observations and reflections are from the pen of Counsellor Dr. Pitschaft, of Baden, and are inserted in some of the late numbers of Hufeland's Journal of Practical Medicine.

TREATMENT OF SCROFULA.

By far the most efficacious remedies against the various forms of scrofulous disease, are, according to the experience of our author, the artificial cinnabar (sulphuret. hydrarg. rub.) conium, cinchona, coffee prepared from acorns, and in obstinate cases, minute doses of the red precipitate of mercury, and the use of salt baths. To children of from one to two years of age, one of the following powders may be given morning and evening:—

℞. Sulphuret. hydrarg. rubri, ℈j.
Herb. cicutæ, gr. ij.
Mercur precipit. rub. gr. j.
Sacchari alb. q. s.
M. in pulv. xx. divid.

The dose of the medicines are to be increased in proportion to the age of the patients. The use of salt baths, of acorn coffee, and of some of the preparations of Peruvian bark, promote the cure of the disease, especially when the constitutional health is impaired.

Dr. P. urges very strongly upon his readers the great importance of treating scrofula in its early stages, and on its first manifestation by his remedial plan; when the roots of the evil have struck deep, and spread themselves all round, the eradication is necessarily much more precarious. The use of the above powders must be steadily continued for two, three, or four months; and should the stomach be weak and apt to be deranged, a grain or so of the aqueous extract of aloes may be added with great advantage.

MEDICINAL PROPERTIES OF ALOES.

In minute doses it is an admirable stomachic, and seems to regulate the due secretion of the gastric juice; that it increases the flow of the bile is unquestionable.

The ancients denominated it "anima ventriculi. Rhazes says "aloe bilem rubeam expellit;" and Aretæus, "aloe ad inferius intestinum bilem ducit." And Ætius has very admirably explained its properties when he writes "Aloe totum quidem corpus non purgat; bilem tamen, qui in stomacho, et ventre, et intestinis fuerit una cum duris excrementis, placide et suaviter educit." To torpor and inactivity of the bowels, especially of the large ones, whether this arises from a deficiency of bile or not, aloes is at once a safe and very efficacious antidote. Dr. P. strongly recommends the following formula, as affording a tonic and aperient pill.

℞. Extract. aloes aquos.
Quininæ sulphatis, āā. ℈j.

M. in pil. xx. One or two at bedtime.

In almost all cases of jaundice, especially of the chronic kind, aloes is a sovereign remedy. The following formula is recommended:—

℞. Extract. aloes liquosi, gr. vi—x.
Extract. taraxaci, ʒij.
Aquæ fœniculi, ʒvj.
Aquæ amygd. amar. conc. ʒj.
M. a table spoonful every hour.

It is very serviceable in all affections of the liver.

RETROVERSIO UTERI—MISTAKE IN DIAGNOSIS.

A woman who had passed through several difficult labours, suffered for three months (during which time the catamenia were absent) from various distressing feelings in the abdomen, and at length from a retention of urine, and a most obstinate constipation; the urine was discharged only by drops; and the use of the catheter was therefore required. For the space of twelve days, no evacuations from the bowels could be procured, although all sorts of purgative medicines had been tried, and the distress of the patient was extreme, from an almost constant tenesmus, complete loss of appetite, nausea, and a tympanitic distention of the belly. Dr. P. was summoned to her relief; he at once suspected the existence of a retroversio uteri; and his suspicions were verified by a vaginal examination. The uterus was easily replaced; anodynes and gentle aperients soon restored her to perfect health. Six weeks afterwards she had a discharge of a large black mass from the vagina, but no traces of a genuine mole could be detected in it.

EPISTAXIS AND HÆMOPTYSIS.

The application of cold washes to the testicles to arrest hæmorrhages from the nose and chest has of late years been too much neglected.

In females the cold may be very conveniently applied to the breasts; and the most easy and effectual method is, to lay a bladder filled with pieces of ice on the mammæ.

In violent hæmatemesis the cold may be advantageously applied to the throat. The operation is probably exerted on the par vagum; and Dr. P. has with the same remedy sometimes succeeded in arresting an obstinate vomiting.

SYMPATHY BETWEEN THE CEREBELLUM AND THE GENERATIVE ORGANS.

It is well known that Dr. Gall considered the cerebellum as the organ of the sexual passion. Plato says that the semen comes from the spinal marrow. In Meckel's Archives of Physiology for 1823, are detailed the particulars of the case of a two-year boy, in whom a premature development of the generative organs, and of the occipital region was contemporaneous. Beheaded and hang-

ed criminals exhibit erections and pollutions; and Dr. Otto has communicated a most interesting account of the appearances of the generative organs in a woman who was hanged.—(Vide his Rare Observations in Anatomy.)

M. Serres has detailed some cases in which constant erections of the penis were among the symptoms present in chronic inflammation and congestion of the cerebellum; and in the 4th volume of Majendie's Journal, we are told, that if the cerebellum of some animals be exposed, and a stilet be forced into it, the penis becomes stiff and erect, and that if the stilet be pushed down the spinal canal as far as the lumbar regions, seminale emissions take place.

Such are some announced phisiological facts; and the consideration of them may lead us to a more successful system of therapeutics in cases of morbid exeitement of the sexual functions.

Among the internal remedies which have acquired the name of anti-aphrodisiac, the least problematical is camphor. According to Fodéré's experiments on the operation of various drugs it appears that camphor acts specially on the cerebellum,—(Vide Archiv. Générales, tom. 3.) And Drs. Duncan, Perfect, and Osiander have strongly recommended its use in that form of melancholy and mental disturbance, which not unfrequently occurs during the period when the sexual feelings are developed. A more important remedy is the application of cold to the occiput and nape of the neck. Frequent ablution with cold water is the simplest and most effectual method: occasionally, too, the local detraction of blood by leeches, or the cupping-glasses, may be of great service. Our attention ought to be directed to this treatment in cases of epilepsy accompanied with priapism and pollutions; and we should remember that it is in no way improbable that the same part of the nervous centre may be indisposed in many examples of hysteria; in this disease it is by no means uncommon for the patient to complain of an uneasy feeling in the back of the head and neck; and the phenomena of catalepsy must assuredly be somehow dependent upon an affection of the spinal marrow.

Baglivi long ago observed—

"Frequenti experientia constat, ex affectione uteri dolores verticem et occiput precipue invadere; pariter mulieres hystericis obnoxiæ affectibus sensum quemdam frigoris in vertice capitis habent; estque hoc precipuum hysteriæ diagnosticum."

USE OF POMEGRANATE BARK AGAINST TAPEWORM.

Of late years many authors have strongly recommended the employment of this remedy for expelling different kinds of the intestinal worms:

"Multa renascentia, quæ jam cecidere."

Frequent allusions are made to the therapeutic qualities of the pomegranate in the ancient authors. Pliny, in his Natural history says, "Radix decocta succum emittit, qui tænias necat;" and Dioscorides, "Radicum decoctum latas ventris tænias potu pellit et enecat." Celsus directs, "Cum pridie multum allium ederit, vomat posteroque die, mali Punici tenues radiculas colligat quantum manu comprehendet; eas contusas in aquæ tribus sextariis decoquat, donec tertia pars supersit; huic adijiciat nitri paulum, et jejunus bibat;" and lastly Avicenna, "Cortex granati cum vino extrahit vermes et ascarides, et assumitur cum sua dispositione, aut sumitur ejus decoctio."

EFFECTS OF MERCURY ON LIVING BODIES.

From the experiments instituted by Caspard (Majendie's Journal of Physiology) it appears that the development of the embryo in the eggs of birds, of the amphibia snails and insects is arrested and destroyed by the vapour or exhalations of this metal. Consonant with these results, is the fact vouched for by Van Helmont, Hoffmann, Baglivi, and Bremser, that water in which quicksilver has been boiled,

possesses anthelmintic properties; and the observations of Kluge prove, that calomel given to a pregnant woman exerts injurious effects upon her fœtus, whereas other preparations of the metal, in which the oxidation is more complete, do not so. Baglivi, in the following sentence, alludes to the anthelmintic properties. "℞. Mercurii crudi recte purgati, unc. j. Aquæ graminis et portulacæ, ana, uncias quatuor; macerentur per duas horas sæpe ac fortiter agitando; postea decanta aquam et cola, relicto in vase mercurio. Non datur prestantius pro fugandis vermibus hoc remedio, ut observavimus, docente Georgio Bateo, Angliæ archiatro."

The odour of other metals, although scarcely appreciable by us, seems to be disagreeable to many of the lower animals. It has been remarked, that a dog, even though well trained, is reluctant to seize and carry a piece of gold; and perhaps the mere effluvia of tin, when given as anthelmintic, may have some pernicious effects on intestinal worms.

EXAMPLES OF SYMPATHY IN DISEASE.

A very frequent, but hitherto almost unnoticed symptom of diseased liver, is a feeling of irritation and pressure on the larynx and pharynx. Dr. Pitschaft, when he first announced this, was not aware that former writers had noticed it; he finds however in Baglivi's work, the following sentence. "Jecore affecto dolores ad jugulum e directo fiunt."

The etiology of this symptom is probably to be sought for in the distribution of the par vagum; and in the same manner perhaps we may explain the supervention of aphonia on many occasions. How common this is when the mind is much agitated; terror, rage, and immoderate desire are well known to rob the persons of their speech.

Illi membra novus solvit formidine torpor,
Arrectæque horrore comæ et vox faucibus hæsit.

Valerius Maximus mentions that Ægles Samius, a wrestler, who was quite dumb, when unjustly deprived of the reward of his victory, recovered his speech in the heat of indignation. It is to be kept in mind, that the liver and also the spleen, are always more or less affected after a paroxysm of mental agitation. Isodorus ingeniously remarks, "splene redemus, felli irascimur, corde sapimus, jecore amamus;" and another author expresses the same sentiments, when he writes, "cor sapit pulmo loquitur, fel continent iras, splen ridere facit, cogit amare jecur."

USE OF MERCURY IN RHEUMATISM.

Dr. Burdach has lately published several cases in confirmation of the good effects of small doses of the corrosive sublimate in cases of rheumatism. For the last twenty years Dr. Pitschaft has been in the habit of employing mercury against this disease; the preparation which he prefers is the red precipitate; it is more mild, and quite as efficacious as the sublimate. He gives it in doses of from one-eighth to a fourth part of a grain twice a day; should it irritate the alimentary canal, a small quantity of opium should be combined with it. When the periosteum is affected, the sabina will be found a useful adjunct; when the nervous system is irritable, the chenopodium may be given, and when the lymphatic system is torpid, the arnica and calamus may be given along with it. As an external application to the affected parts, Dr. P. recommends a salve prepared with caustic ammonia, or one with borax, if there should be any œdematous swelling of the limb.

TREATMENT OF EPILEPSY.

In almost all cases of epilepsy, depending upon some disturbance of the cerebral circulation, the following powders will, if persevered in for a considerable time, mitigate if not altogether cure the malady.

℞. Cinnbar. fact.
Magist. wismuth. (qy. b.)

Herb. nicotia. āā ℈j.
Extr. aloes aquos, gr. v.
M. in pulv. xx. divid. One twice a day.

Many of the older authors had great faith in the virtues of cinnabar, and it acquired the name of magnes epilepsiæ. Dr. Pitschaft regards it as a 'remedium divinum.' We know that the Eastern nations very generally employ it, combined with musk in cases of hydrophobia.—*Hufeland's Journal.*

EXTRACTS FROM THE CASE BOOK OF DR. MOMBERT.

RUPTURE OF THE UTERUS; GREAT INEQUALITY OF THE THICKNESS OF ITS PARIETES.

Dr. M. was summoned to a woman who had been in labour for several days, under the care of a midwife, but before he could reach her abode she had expired. On examination per vaginam, the os uteri was dilated to the size of a dollar, and the head of a child could be distinctly felt. Dr. M. proceeded at once to extract the child by the cæsarian operation. As soon as the abdominal parietes were divided, an immense mass of blood was discharged in a profuse stream, and the floor was deluged with the gush; the intestines protruded out of the wound, and incommoded the steps of the operation; when these were replaced, Dr. M. very naturally expected to find the distended uterus, but not so: on continuing the examination, he found the fœtus, with the placenta attached, and surrounded with much fluid and clotted blood, lying in the cavity of the pelvis, behind the ruptured uterus. The child was quite dead. The uterus presented a very remarkable inequality in the thickness of its walls. The rupture was on the posterior surface, extending from the cervix to the very fundus, and here the substance of the uterus was not thicker than pasteboard; the breadth of this exceedingly thin portion was about an inch and a half. At the fore and upper part of the fundus, and in some parts of the sides, the uterine parietes were from three and a half to four inches thick; and it was observed that they became gradually more and more attenuated towards the posterior surface. The texture of the uterus throughout was unusually pale, but possessed the ordinary firmness of consistence.

The patient was about 30 years of age, and had borne several children. In the present labour, the pains at first were strong and severe, but became weaker and weaker. All of a sudden the alarming symptoms which indicate rupture of the womb, such as the feeling as if something within had given way, sharp fixed pains through the pelvis, syncope, &c. set in; but her ignorant attendant had no idea of the fatal calamity. It is to be observed, that for some hours before death, the labour pains had utterly ceased.

Remarks. Several similar cases are recorded in Voigtel's Pathological Anatomy. In one example, the uterine walls at the site of the rupture were not thicker than three sheets of writing paper folded together, and had a blueish appearance. In another, the reporter says, that they did not exceed the thickness of the back of a knife, whereas at the fundus they were at least two inches thick.

LUMBRICUS FOUND IN THE WOUND AFTER AN OPERATION FOR HERNIA.

The patient was a youth, 18 years of age, and laboured under a scrotal rupture; it had become irreducible after a scuffle, and could not be replaced by the taxis. He would not consent to the operation till the sixth day after the incarceration. The prognosis therefore was not a very favourable one. On dividing the abdominal parietes and the peritoneum, the omentum presented itself; it was of a brownish black colour, and quite sphacelated; and the noose of gut contained in the sac was of a dark colour, but it did not feel soft and lacerable to the fingers. With much difficulty the bowel was replaced, and

a considerable portion of the mortified omentum was detached.

The future progress of this case was much more favourable than could have been anticipated; the constitutional symptoms became favourable, and the wound shewed a disposition to heal, although the purulent discharge from it had never a healthy appearance. On the thirteenth day after the operation Dr. M. was suddenly summoned to his patient, whom he found in the greatest consternation, in consequence of his having found in the wound when he was dressing it, three large lumbrici. which he by gentle pulling had extracted—they were each about six inches long. Dr. M. at first suspected that the worms might have been discharged from the anus, and afterwards have crept up to the wound, and there lodged themselves; but as this had been covered and secured, not only by cerate dressing, but also by adhesive plaster and bandages, the idea was quite improbable. From the hour of the expulsion, the wound assumed a much more healthy aspect, and in eight days afterwards it had entirely healed. Dr. M. states that he is assured in his own mind that the bowel was not at all cut or injured during the operation.

Remarks. The occurrence of worms in cases like the preceding has been noticed by several authors, as Haller, Schulze, Schmucker, &c. and lately a very interesting example was published in the July number of this (Hufeland's) Journal.

SIMPLE TREATMENT OF A FACIAL NEURALGIA.

Dr. M. was called to the relief of a lady 42 years of age, who had for some time been suffering from severe infra-orbital neuralgia. As the attacks of pain were periodic, returning generally every morning, it was suspected that a masked intermittent fever might be the exciting cause of the malady [why was this idea not acted upon and the quinine &c. not exhibited?—*Rev.*] In vain opium, belladonna, conium, laurel, water, and many other remedies were tried—they afforded only a temporary relief. Dr. M. happening to be with his patient during a very severe paroxysm, put in trial an expedient which, it had frequently occurred to him might be of use: he directed a small stream of ice-cold water, by means of a clyster pipe, upon the pained part; the effect was instantaneous and most soothing; but soon the pains returned as acute as before; he now applied compresses wrung out of hot water, and on removing these, he again made the stream of cold water play upon the part; the relief was immediate. This treatment, the alternate application of heat and cold, was repeated as often as the pain returned; each paroxysm was less severe than the preceding one, and after a few days the disease was entirely checked. Four weeks afterwards the patient was safely delivered of an infant, and from that time, six years ago, up to the present period, she has remained free from her torturer.

[It is to be remembered that the preceding was a case of puerperal neuralgia.—*Rev.*

The second case occurred in the person of a young lady, 22 years of age, who had been afflicted with a similar facial neuralgia for three months and who had been subjected to a great variety of remedies, without any avail. Dr. M. recommended the trial of the alternate application of a high heat and cold; and the result was most gratifying. Every paroxysm could be arrested by this means; and ultimately a perfect cure was obtained, accelerated no doubt by the employment for some time of sulphureous baths.

RESULTS OF DR. M.'S EXPERIENCE OF IODINE IN SCROFULA.

It appears that bronchocele and other forms of scrofula are very common in the district [Wanfried] where the Doctor is settled. The town, of the same name, is situated in a valley surrounded with lofty calcareous mountains. The

water which is drunk is good, although hard, in consequence of the quantity of carbonate of lime which it contains; but the general condition of the poorer classes is deplorably wretched; their habitations being damp and unwholesome, and their food and clothing scanty and miserable. Dr. M. has remarked, that strangers who come to reside in the district generally remain free from the malady, but that their children are almost quite as much exposed to it as the indigenous inhabitants. Many children are born with it; sometimes it disappears of its own accord within the twelvemonth, but it is apt to return in the second or third year. The use of the hydriodate of potass ointment (a scruple to the ounce of lard) is generally sufficient to disperse the swelling in such cases, and the internal exhibition of iodine, or of its preparations, is unnecessary. Dr. M. has never in his practice had occasion to remark any injurious effects from the internal use of the tincture of iodine, in adults. Once indeed he saw the mamma of a young female very much reduced in size, while she was taking the medicine; but by discontinuing it for a time, and giving fennel tea freely the organ regained its dimensions. In this case the iodine had caused a considerable increase in the flow of the catamenia. The burnt sponge seemed sometimes to act more beneficially than the iodine, and vice versa. It is therefore a good practice to alternate the use of the two remedies. The ung. hydriod. pot. should be used at the same time. This treatment must be cautiously watched in plethoric and irritable constitutions, as hæmoptysis is an occasional effect of it. It appears that a good many of the cases of the asthma which present themselves to Dr. M.'s notice, are connected with scrofulous enlargement of some of the intra-thoracic glands; thus, in one example, he found on dissection that the trachea and even the œsophagus were compressed by a tumor which occupied the site of the thyroid gland.—*Hufeland's Journal.*

CASE OF SOMNOLENCY WHICH CONTINUED FOR FOUR MONTHS.

When Dr. Oelze, the narrator of this interesting case first saw the patient, a girl eleven years of age, she had been asleep for about six weeks. He visited her on the 18th of May, 1826, and learned the following particulars from the attendants.

At the beginning of the year she had been attacked with measles, which were prevalent at that time in the village; the disease was mild, and her recovery rapid; but in a few days, after she had been able to leave her bed, she complained much of a severe pain in the right ear; this continued for about eight days, and then subsided into the feeling of a dull ringing sound, so constant and so distressing, that the little patient had no sleep for nearly five weeks; otherwise there was no indisposition, except general weakness. Soon afterwards however violent headaches came on; and these were succeeded by colicky pains, which were always increased after eating. The pains in the abdomen ceased in the course of a fortnight, and then for eight days she was distressed with pains in all the limbs and joints of her body. On the 3d of April she fell into a state of torpor or sleep, from which no means which had been tried could rouse her, and she had continued so until the day when Dr. O. first saw her. Some days she uttered a moaning sound once or twice; but with the exception of this, she had lain without food, and as still as a corpse, till two days before Dr. O. had visited her; when, as the patient made an effort to weep, her mother had introduced a small quantity of milk into her mouth. On the following day a similar attempt at weeping was repeated, and this time she was made to swallow half a cup full of coffee. She occasionally coughed, and now and then turned herself in the bed. No urine had been passed since the commencement of the somnolency, and only once a very small quantity of hardened fæces had been discharged. The skin had all along been unusually dry.

Dr. O. describes her appearance as

follows. The face was pale, the body generally somewhat emaciated; the chest was well expanded, the abdomen drawn in, and the skin of every part felt exceedingly dry to the finger. The respirations were unusually short, but so gentle was each act, as to be with difficulty recognizable: they were however not uniform in this respect; for sometimes the chest appeared to heave up more considerably, although this did not seem to be the result of a deeper breathing; while at other times its motions could not be perceived. The pulsations of the heart were also very irregular in their frequency and strength; usually after each stronger beat numerous smaller ones followed; then the heart seemed to rest awhile quite quiet, or only to be affected with a slight tremor: the pulse at the wrist however was tranquil and much more regular, but very small and easily compressible; it beat from 84 to 94 in the minute. The hands were kept always firmly contracted. When strong hartshorn was held to the nostrils, and applied on the upper lip, the patient sneezed and rubbed her nose with her hand. The effects of galvanism were then tried; slight shocks were sent sometimes from the pit of the stomach to the forehead, eyelids, ears, &c. and at other times from the soles of the feet to the head, arms, and so forth. At first these shocks were evidently distressing, and caused her to draw herself, as it were, together, and to begin crying; the ears appeared to be the most sensitive parts to the galvanic irritation, for whenever one of the poles was applied to them she endeavoured to cover them with her hands, and strove to say that they were pricked and very painful. When asked if she felt pain in any part, she pointed to the neck. Dr. O. told her he wished her to take some coffee, and she permitted a spoonful or two to be poured with a spoon into her mouth; but the efforts to swallow it were evidently most painful and difficult, and it was sometime before all of it disappeared. The deglutition was easier after both sides of the neck, along the track of the œsophagus, were well galvanized. When the hands were galvanized, they were more contracted than before, and never became properly extended. It was remarked that no particular twitchings of any muscles were ever induced by the application of galvanism. The patient seemed to retain perfect consciousness, and to observe whatever was going on around her, although the eyes were kept always closed. When asked to look at any thing, it was easily seen that she strove to do it; but the eyelids were never more than very imperfectly separated from each other. When drawn asunder a slight resistance was felt, sufficient to indicate that a state of spasmodic contraction of the orbicularis had existed; the eyes had a staring look, and rolled slowly from one side to the other—the pupils were considerably dilated. When the patient uttered any cry, it was observed that she took long and deep inspirations without any apparent impediment or difficulty; but no sooner was she asleep than the breathing became again short and much quickened. It was curious to remark how quickly and almost instantaneously she relapsed into sleep, even after the excitement which had been produced by galvanism was so violent that she had been screaming, kicking with her feet, and beating with her hands against all attempts to repeat it. However much agitated the rest of the body was, the eyes were always kept shut.

Dr. O. having persevered in the employment of galvanism for a full hour without any satisfactory good effects, discontinued it; and concluding from the history of the case, that the "primum mobile," or at least one of the most prominent features of the case, was the cessation of the cutaneous secretion, directed his efforts chiefly to restoring this to its normal condition. For this purpose he ordered a mixture of infusion of valerian, camphor, and the compound sulphuric spirit.

From the 10th to the 30th of May.—It is stated that the child slept very tranquilly after the application of the galvanism until the next morning, when she seemed rather more lively, and told her mother, that the ears, chest, and abdomen in particular, had been very

painful from it. From that time a cupful of milk was given, by spoonfuls, each day, but it had not agreed with the stomach, for indigestion, nausea, and even vomiting had been almost always brought on, after it was given. The medicine had caused nearly the same effects. Since Dr. O.'s first visit the sleep had not been so constant, nor yet so profound; for the mother had been able to obtain a few answers from her every day. At times a gentle perspiration had bedewed the surface. On the 27th of this month, for the first time since the third day of the preceeding one, some urine was voided, and the patient had indicated by signs that she wished to be taken out of bed, in which two or three hardened scybalous masses were found.

Dr. O. visited her on the 30th—she was asleep, and the respirations were so gentle that he could scarcely perceive that she breathed at all. The same irregularity in the movements of the chest were noticed, as on the first report; and the actions of the heart were still as confused; but the pulse retained its former regularity, and now beat 74 in the minute. The hands were in the same contracted state, and when Dr. O. inserted his fingers between those of the patient and the palm of her hand, he found that they were so very fimly grasped, that it required a considerable effort to withdraw them. She took no notice of what was addressed to her; and even shaking her body and limbs seemed not to affect her. Ammonia held to the nostrils, produced only a slight twitching of the features.

The application of galvanism was again resorted to, and similar effects were obtained from its employment. It seemed this time that the patient remembered the annoyance which she had experienced before; for she struggled very violently against every attempt made to repeat the operation. The transitions from agitation to sleep were now not so rapid as on the former occasion. Deglutition was quite as difficult as before; and most of the other phenomena were unaltered.

A warm bath, in which a considerable quantity of common salt had been dissolved, was ordered for her. When put into it she attempted at first to support herself with her hands. Some frothy saliva escaped from the mouth, and she then lay still and motionless as a corpse; the hands became more compressed, and indeed altogether the spasmodic state or tendency of the body was rather increased than diminished by the remedy; but upon being removed from the bath and wrapped in warm blankets, a strong perspiration broke out, and this lasted for upwards of two hours. The medicines which Dr. O. prescribed at this visit were the following; a grain and a half of the flowers of zinc every night and morning, and an enema of tobacco and chamomile infusions once a day.

From 30th May to 9th June.—The sweating which had followed the use of the warm bath had returned although less profusely, several times afterwards, but with no amendment of the symptoms; indeed the stupor seemed to have increased somewhat; for the patient had spoken scarcely a word, and not a mouthful of nourishment had been taken. Only two injections had been given, and these had never returned; it was therefore deemed unsafe to repeat them. A sort of general spasm, or convulsive fit, (of a truly opisthotonic character) had taken place almost every day, and this was always preceded and announced by the patient's screaming. The spine and head were violently bent backwards, and the limbs rigidly extended. This state continued for three, four or five minutes, and then the spasm abated, and the joints became more flexible. A small quantity of urine was voided on the 8th of June.

The next day Dr. O. saw her, and found her very nearly in the same condition as at his former two visits. The breathing and circulation were unaltered; the alæ nasi were observed to dilate and close more powerfully, and the eyelids frequently to be affected with tremulous movements. The galvanism was repeated, as far as the patient's struggles permitted its employment: it had the effect however of

forcing her to answer all questions more readily and distinctly. Soon afterwards several paroxysms of spasm came on, at intervals of from eight to twelve minutes. One grain of calomel with one of the red sulphuret of antimony and three of sulphur were ordered to be given morning and evening, and an enema composed of valerian, tobacco and chamomile infusions.

On the 16th it was found that the attacks of cramp had been less frequent on the whole, although there were generally still four or six daily. The patient had drunk a little milk now and then, but she had not spoken at all; and only once was any urine discharged. The pulse beat from 75 to 80; the other phenomena unchanged. The effects of opium were now tried; fifteen drops of laudanum were given, and repeated every hour for three times. When the second dose was given she became more lively, and began to scream out; thereupon a paroxysm of opisthotonos came on, and lasted for several minutes. A warm bran bath was ordered, and the same injurious effects followed as after the use of the water bath. The powders prescribed at the former visit were continued.

July 4th. Very little change in any of the symptoms; once only there had been a discharge of urine, and of fæculent scybala; and of late the paroxysms of cramp had become more frequent; some days they recurred almost every hour, and their duration also was longer than before. The calomel, &c. powders had been given as often as possible; for frequently not a grain or drop of any thing could be got down; and it was only to be effected when the mouth was opened during the crying which preceded the paroxysm. At other times it was kept firmly closed. Numerous clysters had been given, and every one of them retained. The surface of the body was almost always cold, although the temperature of the air was at this time very high.

About a week after this date the child began to be less drowsy, and to notice more and more whatever was going on in the room where she was. It was quite apparent that she understood the conversation of those who were talking to her mother; and on one occasion, she intimated that she wished her chest to be rubbed again with a hartshorn liniment, which she had observed to have been put aside in a cupboard. She took more willingly small quantities of milk and of coffee; but both of these drinks were generally vomited soon after being swallowed; this irritability of the stomach had existed from the commencement of her malady. Urine had been voided once, in the last ten days.

25th July. There had been some abatement of the somnolency since last report, and the attacks of cramp had been less frequent and severe. She had taken more nourishment, although vomiting still occasionally followed the effort of swallowing. The sensibility and consciousness were also more distinct; but though observant of what was done or said in her presence, she had not of late spoken at all, and had answered questions put to her only by winks and nods.

The urine had been discharged three times, and the bowels relieved twice.

The action of the heart was less irregular than hitherto, and the movements of the chest were more uniform; the eyelids were more readily separable, and frequently agitated with a tremulous motion; the pupils were now natural. When Dr. O. visited her she was in a profound sleep, which was not in the least disturbed by shaking her violently from side to side.

The powders and infriction on the spine were ordered to be continued.

From this date the somnolency became very much less, and the tetanic convulsions almost quite ceased.

It had been observed that the degree of the former had been always proportionate to the violence of the latter; and now both symptoms abated simultaneously. The appetite gradually returned, although the stomach continued to reject part of the food; the bowels and urinary bladder relieved themselves daily. The eyes were observed to be very sensitive to the impression of light.

By the middle of August she had recovered so far that she remained

lively during the whole of the day. When she attempted to walk, her gait was awkward and tottering; the spine appeared to be exceedingly weak, and, upon any exertion, the breathing became oppressed and the circulation much hurried. The speech, however, was still almost quite deficient, and when she was asked the reason of it, she pointed to her chest, where, it seemed, she felt much embarrassment and distress. However, in the course of another fortnight, it was greatly restored, and from this date the patient was pronounced to be quite well. The child, it appears, had no remembrance of her illness, and of what had been done to her during its continuance.

Reflections. The somnolency, in the preceding case, seems to have been induced by the mismanagement of an attack of measles, especially during the eruptive stage. The early symptoms were those of pain, and feeling of noises in the right ear: as these subsided, severe headachs, then pains in the abdomen and limbs, set in, and, lastly, the somnolency and tetanic spasms succeeded. This succession of symptoms seems to indicate the operation of a rheumatic gouty diathesis as the cause of the malady.

The physiology of such a case is certainly obscure:—As noticed before, the co-existence and co-abatement of the drowsiness and convulsions were probably owing to the same morbid state; but what the nature of that state was, it is not easy to determine; perhaps some peculiar pressure on the nervous centres. It is not a little singular, that the organic functions can be maintained for such a length of time, without any fresh supply of nutriment, as they were in the present case. For six entire weeks, not one mouthful of food was swallowed; and, for the next five or six, only from a half to one small cupful of milk and coffee in the course of the day; and half of these quantities was generally rejected by vomiting.

The respiratory function was, indeed, imperfectly performed, and the circulation was more or less disturbed—so also were the secretions. But yet the emaciation which took place was by no means very striking, and nothing like what might have been anticipated from so lengthened an abstinence. A feature of the case worthy of notice is, that the arterial pulse was steadily regular, although the actions of the heart were almost always irregular and confused. This would seem to indicate that, in some convulsive diseases, the actions of the heart and arteries are independent of each other to a certain extent. As to the therapeutic deductions, Dr. O. is inclined to attribute most of the benefit from the medicines employed, to the mercurial preparations; and, of these, the most efficient seemed to be the calomel.

The venerable Hufeland has appended a remark or two of his own to the preceding report of Dr. O. He alludes to the metastatic origin of the somnolency and cramps, and conjectures that a certain degree of cerebral effusion had existed during the greater part of the existence of the malady. He attributes the recovery of the patient to the agency of the mercury having excited the action of the absorbents. He approves of repeated blisters, applied to the nape of the neck.—*Journ. der Pract. Heilk.*

USE OF ACONITE IN NEURALGIAS—AND OF CREOSOTE IN ULCERATIONS.

M. Roche has of late used the extract of aconite in doses of one grain, to be gradually increased, with very considerable success, against facial neuralgia and other nervous pains. He gives it sometimes alone, and at other times in union with opium. M. Tealier has followed the practice, and reports most favourably of it. The cases, however, which he has adduced were all of them of recent standing; and it is well known at the commencement of the malady, a complete cure may very generally be effected with other means.

M. T. has also communicated the details of two cases of painful ulceration, in which he had used externally the creosote (a short history of this newly discovered substance will be

found in our last No.) with pleasing effects. The first was one of cancerous ulceration, the pain of which was most agonising to the poor patient. M. T. applied rags, wet in a dilute solution of the creosote, to the sore. It caused at first very severe burning pain, which extended from the mammæ all round, and lasted for upwards of an hour; it then ceased, and the patient was easy for the next ten. The application was afterwards repeated, and always with temporary advantage.

The second case in which the creosote was employed was that of a female, 34 years of age, and mother of a large family, who was labouring under chronic metritis and ulceration of the os tincæ.

One part was mixed with three of water, and a plug of charpie, wet with the mixture, was introduced into the vagina, and the mouth of the womb freely wetted with it. The pain which ensued was quite distracting; injections of cold water were employed, with partial relief—but the suffering did not altogether cease until the 2d day. The patient then, however, had experienced so much benefit, that she was able to rise from bed (to which she had been confined for two months); and when the os uteri was examined some days afterwards by the speculum, it was found that the appearance of the ulceration was much improved.

The application, but in a much more diluted form, was renewed several times; and the eventual result was most gratifying and completely successful.—*Révue Médicale.*

DEATH CAUSED BY CYANURET OF POTASS.

To a patient, labouring under severe neuralgia of the trunk (abdomen?) a lavement, in which were dissolved six grains of the cyanuret in a moist state, was given; and, as it did not afford relief, it was twice repeated afterwards. Each time, strong convulsions and violent contractions of the limbs were induced—the eyes became fixed, and the pupils were dilated. The patient was, however so much benefited, that he was able to rise from bed, to which he had been confined for a twelvemonth.

A fourth injection was given, without any marked effect, and a fifth 36 hours afterwards; the same dose was exhibited, but the cyanuret had been taken from a quantity which had become dry, from being kept in a close bottle, and which was almost quite inodorous. Soon after it was received, severe convulsions set in, the respiration became slow and embarrassed, the limbs were cold, and death ensued in the course of an hour.

M. Trouve, the reporter of the case, attributes the fatal accident to the greater activity of the cyanuret when it is in a dry, than when it is in a moist state. —*Ibid.*

ON THE FORMATION AND ARRANGEMENT OF THE EPIPLOONS IN THE FŒTUS.

According to the celebrated anatomist Meckel (whose death science has had lately to deplore), there are no traces of the epiploon in the very early periods of fœtal life. At the end of the second month, it appears as a projection at the great curvature of the stomach; this projecting part gradually becomes lengthened, and chiefly its lower portion; but it is not yet in contact with the transverse colon. While the mesentery is forming, the epiploon descends a little more—its inferior layer is joined to the mesocolon, and is soon confounded with it; this adherence exists in the fourth month—but it is still so loose, that we find no difficulty in separating the epiploon from the stomach. There is not the slightest appearance of fat, at first, between the layers.

Meckel and Kieser had previously demonstrated that, 1, The stomach is placed, during the fourth and fifth weeks of intra-uterine life, nearly quite perpendicularly; and that, at these periods, it is only a semi-circular expansion ("renflement") of the intestinal canal —2, This canal proceeds directly to the umbilical cord, then turns back at a sharp angle into the abdomen, till

it reaches the anus. In this state, the stomach and intestine are attached to the posterior wall of the abdomen by means of a vertical fold, which, coming from the spine, is directed to the great curvature of the stomach, where it becomes separated into two layers, of which the left one passes in front of the anterior surface of this viscus, and the other, or right one, passes behind; these layers then meet each other at the smaller curvature, and proceed on to invest the liver. This fold is, therefore, truly a mesentery to the stomach, and Professor Muller denominates it mesogastrium.

In proportion as the position of the stomach becomes more horizontal, and the pylorus to be directed towards the right side, the mesogastrium acquires an oblique direction from left to right, and the layers become slightly plaited, and lengthen out from the point at which they are united, viz. at the larger curvature.—*Meckel's Archives de Physiol.*

FATAL BLOW TO HOMOIOPATHISM IN RUSSIA.

The celebrated Berlin surgeon, Dieffenbach, has very truly said, that this new doctrine offers a vast field to the most absurd reveries and antiquated superstitions, which some shallow men always prefer to whatever is clear and palpable; and all who have perused their oracular book or institute, the "Organon of Medical Science," as it is modestly called by the author, must have arrived at the same conclusion. There is an utter destitution of all rational proofs of the opinions, or rather dogmas, there announced. Proceeding from a few appearances, at best of very exceptionable accuracy, Hahnemann leaps at once to the assertion—that no medicine ever cures a disease, unless it is capable of exciting in a healthy system symptoms altogether analogous to those which it is employed to relieve. Almost all chronic diseases, we are informed, are caused by ill-cured itch! There is no proof given of this—only we are told that it is so!!! Then another wondrous discovery is, that the ten millionth part of a grain of charcoal is a very active agent in some diseases; and that many medicines are extraordinarily exalted in efficacy, by the number of times the vial which contains them in solution is shaken!!! Yet, such is the hungry credulity of mankind, that all these good things are swallowed, nay, even digested, if we may judge from the products, we mean of the brain, which, with all suitable consistency, are inversely proportionate to the ingesta. Born and nursed in Germany, that fatherland of wild phantasies, this curious doctrine has been diffused over Switzerland and Italy—has entered France, and reached Lyons, and even Paris. [It has found a home in our own country also.—REV.] Like every novelty, it blinds and infatuates many for a time. When we hear of old-established practitioners, not to allude to numerous young men, who cannot possibly be influenced in their choice by any selfish or mercenary motives, forsaking their accustomed ways, and fondly embracing the most ridiculous vagaries as the only truth, can we explain such an occurrence in any other way, than by thinking of many other absurdities which have, for a time, been tolerated, admired, adopted, applauded, and then ridiculed, scoffed at, and despised.

Well has it been said by one of the great German poets, Goethe.—"For even when all ideas are awanting, a word or two will supply their place; with words you may fight most famously; with words you may build a system of philosophy; if man but hears words he will believe them." To give a specimen of the practical excellencies of homoiopathism, we cannot do better than allude to the course which has been pursued by the Russian Government towards it. A Saxon physician, M. Hermann, the great apostle of the system in Russia, was invested by the Grand Duke Michael with full powers to display, in a course of clinical experiments, its superiority over the common practice and theory of the day.

One of the wards of the Hôpital de Tuttschin, which contained a number

of soldiers affected with fever and dysentery, was allotted to his special management, during a space of two months.

The following table exhibits the results.

	Patients.	Cured.	Died.	Rem.
Common method,	457..	364..	—..	93
Homoiopathic do.	128..	65..	5..	58

It seems that the Grand Duke could use his eyes; he was satisfied, and withdrew his commission. However, some time after this the Ministers of the Russian Government summoned M. H. to Petersburg, gave him authority to select his own hospital, and to make any arrangements he thought fit. The wards were fresh painted, and every hygienic precaution faithfully executed. Even the kitchen was placed entirely under his control and superintendance; and in order to prevent the possibility of any interference a sentinel was placed before the door, and none permitted to enter during the occasional absence of M. Hermann. His first request respecting the patients was a very moderate and modest one, viz. that none should be sent to his hospital who laboured under ulcers, syphilis, dropsy, phthisis, &c. and that he should have the selection of all his cases!! Even under these most fortunate circumstances, the results were most unfavourable to the new practice; the proportion of deaths to recoveries was much higher than in ordinary practice, and the duration of the treatment was always protracted and tedious. Here is a specimen of the reports. The case is pronounced one of peripneumonia.

History. Patient ill for seven days; severe frontal cephalalgia, pains in the eyes, tongue clean, but dry, thirst, bitter taste in the mouth, anorexia: bowels open, dry cough during the night, and this is accompanied with pains in one side, which are increased on pressure; pains felt in the arms, skin cool, pulse full and not frequent.

An infinitesimal dose of arnica ordered. Next day but little change; but after this the symptoms gradually subsided, and the patient was discharged cured on the 19th day after admission.

A well-marked example of peripneumonia indeed!! A slight catarrh with an equally slight disturbance of the stomach. We might adduce fifty specimens of equally correct diagnosis, and astonishing success.—*Ann. de Hecker.*

"Extremes," it is said, "often meet," and the present day can boast of extremes and opposites flourishing beside each other without meeting. We have a nostrum-monger in this metropolis who has made his fortune by persuading John Bull and Jane Cow to swallow three, four, and six dozen pills daily for weeks and months continuously!—*Rev.*

RUPTURE OF THE VAGINA DURING DELIVERY.

A healthy woman, about 30 years of age, and who had borne one living child, was the subject of this case. The labour had continued about eleven hours and had been rather difficult and tedious in consequence of an œdematous swelling of the labia, and of the lower extremities. The head had already descended fairly into the cavity of the pelvis, and the pains had become more severe, when on a sudden they ceased entirely; the patient complained of a sharp pain in the right iliac region; vomiting and general coldness succeeded, and the patient died in the course of an hour.

The different parts of the fœtus could be distinctly felt through the abdominal parietes. No outward hæmorrhage occurred.

Dissection. A small quantity of blood was found in the abdomen; the uterus empty, and contracted upon itself, was inclined somewhat to the right side, and presented in all respects a normal appearance. The fœtus had escaped into the cavity of the abdomen, and its body was enveloped among the intestines, the knees being placed against the abdominal parietes, while the head remained still in the passage, and was, as it were, incarcerated there by the edges of the opening, firmly applied round the neck. The laceration had

taken place in the upper part, or vault of the vagina, which was enormously stretched, the child being unusually large. The placenta had descended into the vagina, and was partially protruded through the rent into the abdomen.—*Siebold Journ. der Geburtshulfe.*

Sur la Pathogenie de l'Axe Cerebro-Spinal. Par Dr. Rey. Quarto, pp. 110.

This book seems to have been written by a young medical man, who is determined to be an author, whether he has much to communicate or not. It is altogether occupied with the histories of cases extracted from a hospital record, and these histories are garnished with a few bald remarks.

The author becomes soon quite exhausted upon the announced subject matter, viz. the diseases of the "axe cerebro-spinal," and treats us with the account of an encysted tumor of the neck, of an impalement of the sexual passages in a female, and of divers other topics. We shall select one or two of the most instructive cases.

Case of Hemiplegia—enormous Encephalic Effusion of Blood.

A man of colour, between 60 and 70 years of age, of a strong constitution, but excessively addicted to intoxication, was suddenly, after one of his debauches, stricken motionless and insensible; the right side was quite palsied—the left exhibited slight muscular contractions. The pulse was less distinct in the right than in the left wrist; the actions of the heart were irregular and convulsive. He died on the following day.

Dissection. The scalp was so turgid with blood, that a large quantity flowed out when it was divided. The dura mater had a deep red colour, and all the superficial vessels were highly congested. On attempting to take the brain out, the quantity of blood that was found effused was equal to, at least, "deux saignées." The surface of the cerebellum was deeply ecchymosed. On the left side, the fissure of Silvius was almost obliterated by the distention of all the hemisphere around; and, at this part, a sense of fluctuation was perceived, as of an abscess. When cut through, a huge cavity, as big as two fists, and filled with dense coagula, was laid open. The left lateral ventricle was scarcely recognizable, in consequence of its cavity being occupied with a mixture of blood and medullary detritus. The septum lucidum was torn through, and thus a large hole of communication existed between the two ventricles. The right ventricle and the laceration, which opened into it, formed a cavity of the size of a man's fist—it was filled with fluid blood.

In some remarks appended to the preceding history, the author expresses his opinion that bloodletting, in such cases, always accelerates the fatal issue. The great difficulty consists in distinguishing the encephalic rupture and effusion, from mere encephalic congestion. In the former case, blood depletions ought certainly to be more sparingly and more cautiously employed.

The only other case we shall extract abridged is one of—

Encysted Tumor, situated on the Forepart of the Throat.

A woman, 49 years of age, presented a large tumor, of the size of two fists, situated on the right side of the larynx and trachea. It was of 4 years' standing; but its growth had been much more rapid within the last, than during the preceding three. The voice had become, in consequence, very weak and shrill, and the sleep was disturbed, and any efforts of swallowing rendered difficult, from the sense of suffocation thereby induced. The distress in breathing was sometimes so great, as to amount to orthopnœa. The tumor, when examined, was found to be firm and resisting, and communicated an uniform elasticity; it extended from the base of the jaw to the clavicle, seeming to pass behind this bone, and to surround its sternal extremity; the larynx and trachea were pushed to the left side, and the sterno-mastoid muscle elevated and stretched. It gave no pain, and the skin over it was not discoloured. The

internal and external use of iodine were tried, but with no further effect, than that a sense of fluctuation was afterwards distinctly perceived.

Dr. Rey considered the case to be one of encysted tumor, and proposed to open it, and to endeavour to excite inflammation of its internal surface, with the view of inducing adhesion of its walls. He first punctured it with a trocar, and gave issue to about ten ounces of a greyish, pultaceous ichor. Two days afterwards he made an incision, an inch and a half in extent, and discharged as much as on the former occasion: he then introduced three dossils of lint into the sac, and kept the lips of the wound apart.

Considerable fever supervened; the discharge was unhealthy, and very fetid, and the patient at one time became delirious. These symptoms, however, soon disappeared, and her condition was much improved, the neck recovering greatly its wonted freedom, in consequence of the contraction of the tumor. The wound not being kept well open by the lint, Dr. R. introduced a piece of silver catheter. The case went on progressively to a complete cure, which was pronounced complete in about three months after the operation.

Dr. Rey mentions that M. Guerin, a distinguished surgeon of Bourdeaux, has for many years past been in the habit of treating successfully all cases of hydrocele, by leaving the trocar in the wound for a quarter or half an hour after the fluid has been discharged; sufficient inflammation is thus induced to excite the adhesive process, and thereby to effect a permanent cure.

EXTENSIVE MESENTERIC DISEASE—GREAT HEAT OF THE WHOLE BODY THE CHIEF SYMPTOM.

Giovanni L. æt. 36, a countryman, was admitted into the hospital at Padua in February 1830. His only complaint was a burning heat over every part of his body; and this was so distressing, that, although the weather was exceedingly cold, he lay all night without any covering. Two bleedings from the arm, and cooling purgatives, relived him so much, that he was able to return home. In the month of May he returned, labouring under the same distress, and was again made well by a similar treatment. At this time, however, some symptoms of a hypochondriacal affection were first observed.

A fortnight after his second dismissal he came back, in consequence of a mild attack of continued fever, accompanied with that feeling of burning heat which had so much distressed him before. A variety of remedies was tried, but with few good effects, the fever continuing in spite of them, and the patient gradually losing strength and flesh. The pulse being firm and hard, he was bled from the arm, and twelve leeches were applied round the anus. Being considerably relieved by this treatment, he was induced to leave the hospital. He was not, however, long absent, and, on his return, his condition was decidedly worse. The pyrexial symptoms were much aggravated, but he no longer complained of the burning heat; his emaciation was much greater.

Repeated examinations of all the great cavities of the body were made by more than one experienced physician, for the purpose of ascertaining, if possible, the seat or exciting cause of the prolonged duration of fever; but no very satisfactory conclusions could be arrived at by any one. It was suspected, however, that the "fons et origo mali" was probably seated in the lower part of the abdomen.

A diarrhœa came on, and, as it could not be checked, the patient speedily sunk under its effects. He died about the middle of August.

Autopsy. When the abdominal cavity was laid open, and the small intestines, which were found contracted and quite empty, had been pushed up, an extraordinary mass of indurated disorganized glands presented itself to view. It was fully as large as two fists put together, and, when divided, exhibited a yellow colour, and a structure not unlike to that of genuine scirrhus. So general was the morbid change, that not one healthy gland was discovered in the

whole course of the mesentery. It was very naturally a subject of great surprise, how such an enormous enlargement as existed at one part could have escaped detection during life, seeing that the abdomen had been repeatedly examined with great care. The only way in which we can explain this, is by supposing that the intestines were always interposed between the mass and the parietes of the abdomen.

Remarks. The preceding case is very interesting in several points of view; and, of these, not the least important is that of illustrating what extensive disorganization may be going on in certain viscera, and yet the symptoms, especially the local ones, may be very obscure and unsteady. The leading feature, in our patient, was the extreme heat and sense of burning which he felt in every part of his body.

It may, therefore, be worthy of the attention of physicians, whether this symptom is not more frequently attendant upon mesenteric disease than has been noticed hitherto. We have certainly observed it, more than once, in some of the abdominal affections of children.—*Annali Univers. di Medicina.*

INCURABLE NEURALGIA OF THE ULNAR NERVE.

Professor Viviani, not long after his recovery from an attack of rheumatic sciatica, began to experience slight pricking and formication, preceded by a feeling of an aura in the left forearm, along the line of the ulna, the ulnar side of the carpus, and in the little and ring fingers. These sensations, at first trifling and transitory, became more severe, and fixed in the palmar superficies of the wrist, on the side of the pisiform bone, and extending thence along the palm to the two fingers, but never retrograding. The paroxysms of pains increased in violence—sometimes short, but dreadfully agonizing, each throb shooting along with the rapidity of lightning; at other times, they were more protracted. The pulse at the part was never affected, and the general health of the Professor was perfectly good. During the space of three years, every remedy that could be devised was tried, but in vain. He then consulted the celebrated Scarpa, who gave it as his opinion, that the nerve was probably not diseased higher up than the seat of the pain, as he found that firm compression on the carpus, during a paroxysm, very considerably mitigated the pain. He, therefore, recommended the division of the nerve in the forearm.

An incision was made, beginning about an inch above the pisiform bone, and carried upwards, along the side of the tendon of the ulnaris internus; and, on dissecting between this tendon and that of the palmaris longus, the ulnar artery and its accompanying nerve were easily exposed. About half an inch of the nerve was excised; the little and ring fingers immediately lost all feeling and mobility.

The hopes of the patient and surgeon were soon blighted. During the night after the operation, a paroxysm, quite as severe as any preceding one, was experienced; the pain seemed to commence at the upper angle of the wound, and darted to the extremities of the two fingers. The condition of the patient was, therefore, not at all bettered by the operation; indeed, the fits of suffering became more lengthened and excruciating; on one occasion, the pain lasted unceasingly for 36 hours. The two fingers were all this time quite palsied, and generally half bent upon the palm of the hand.

Four years after this date, Professor Viviani wrote to Scarpa, acquainting him that, since the operation had been performed (1827), his sufferings had become more and more intense, and that they had defied every attempt, even to relieve them for a time.

GENERAL REMARKS ON NEURALGIA. By SCARPA.

He very justly remarks that there are two sorts of neuralgia, very different from each other in almost every respect, and yet which are daily and hourly confounded with each other.

The one, "neuralgia anomala," of Chaussier, proceeds or arises from a local and circumscribed cause, which may in most cases be removed by the hand of the surgeon. The other, "neuralgia essentialis, vel legitima," appears to depend upon some cause, perhaps constitutional, which we cannot appreciate, or discover, and very generally defies all medical and surgical treatment. The latter species is usually seated in some of the most superficial nerves, returns at irregular intervals, induces little or no change in the appearance of the part affected, either during life or when examined after death, and may therefore be supposed to have a constitutional or systemic origin, and not merely a local and circumscribed one.

Scarpa combats the idea that every case of neuralgia is dependent upon an inflammatory state of some portion of the nervous system. This is quite a gratuitous assumption. He thinks it more probable that its etiology is somewhat analogous to that of epilepsy, (although he is too cautious to conjecture what the essence of either disease may be) and proposes to call it "epilepsia sympathica partialis."

How are we to explain the recurrence of the neuralgic agony in a part which has been palsied by the section of its nerves? We do not pretend to solve the problem, but shall merely hint, that it appears to be a phenomenon very much akin to that of the recurrence of pain in the situation of a limb which has been amputated.

In conclusion, Scarpa observes that we have reason to anticipate more advantage from constitutional, than from local treatment, in cases of legitimate neuralgia; for sometimes nature alone will, after years of suffering, bring about a mitigation, or even an entire dissipation of the pain.—*Ibid.*

ADHESION OF A SEPARATED FINGER—PARTIAL GANGRENE—RECOVERY.

A medical student accidentally divided the last phalanx of his left fore-finger so completely across, that the divided piece fell on the ground. It was immediately replaced, and secured by adhesive straps and a bandage. On the fifth day afterwards the dressings were removed, and it was then found that gangrene had taken place in the truncated phalanx; but most fortunately this did not extend beneath the surface, for when the mortified cuticle was removed, the subjacent textures were of a red colour and seemed quite healthy; adhesion, although somewhat imperfect, had taken place: in other three days it was complete.

The sensibility of the apex of the finger was for a length of time very feeble; but this was gradually restored, nearly to its normal standard.

The preceding history furnishes an apt corroboration of the accounts which have been left us by Tagliacozzi and others; although Richerand and some other moderns have attempted to ridicule them as unworthy of credit.

Dr. Angelo della Cella, the reporter of this case, with much good humour invites M. Richerand and his followers to cross the Alps and pay him a visit on the banks of the Entella, when they will be able to see with their own eyes, and then try to believe.—*Ibid.*

CASE OF PARAPLEGIA—SUPPRESSION OF THE URINARY AND ANAL EVACUATIONS DURING ELEVEN YEARS.

When Dr. Montesanto first saw this patient in April, 1831, he had been paraplectic for upwards of eleven years, and was suffering at the time from the sequelæ of a severe attack of pneumonia; so that it was not expected that he could long survive. The thoracic symptoms however gradually disappeared, and he was then in the same paralytic condition in which he had remained since the year 1820. His appetite was vigorous; but the food seemed to meet with some obstruction, probably at the pylorus, for it was regularly rejected by vomiting in about three hours after it had been swallowed. It is stated that a former part of his

illness a stercoraceous vomiting, which had previously recurred at intervals of from forty to fifty days, had ceased altogether for more than two years. No secretion of urine, nor evacuation per anum had taken place since the commencement of the disease, in 1820; neither during all these years had there been any traces of activity in the generative organs. Strange that with such a defect and morbid state of the alimentary and urinary organs, the general health of the patient should have continued moderately good. Towards the close of the year 1831 he had a threatening of the return of his thoracic complaints; but they were speedily removed by appropriate treatment. Occasionally too, when he eat any food which disagreed with his stomach, or took it at improper times, he was seized with alarming symptoms of cramp and ineffectual efforts at vomiting. One of these attacks which had been brought on by a repast of fried sardinias, nearly proved fatal in the Spring of 1832; for fifteen days his life was despaired of; fortunately then a spontaneous vomiting occurred by which he rejected four large masses of solid stercoraceous substance, which seemed to have been impacted in the intestines. Nature having thus relieved herself of an immense accumulation of fæcal matter, which had been gradually collecting for a space of nearly three years, the health of the patient was speedily restored to its former condition. It was necessary every now and then to take away a small quantity of blood by venesection, to counteract in some degree the stimulating and plethoric effects of the ardent spirits which the patient was in the habit of drinking.

In the Summer of the following year Dr. Montesanto makes the report, "that his patient's health for the last twelvemonth has been on the whole exceedingly good; and that there has been no return of the stercoraceous vomiting during that period."

The paralytic state of the lower half of the body remained unchanged; all sensibility quite gone, but the limbs not wasted, and though motionless at will, were supple and flexible.

The authentic particulars now related have attracted the attention of many of the most distinguished physiologists and surgeons in Europe; the case altogether is one of the most wonderful on record—the mode of existence in this man being allied to the normal condition of life in some of the lower classes of animals.—*Annali Univ. di Medic., Agosto*, 1833.

CASE OF APPARENT DEATH [LIFE?] WHICH LASTED FOR THREE WEEKS.

A young man who had recently been cured of a tertian fever, was admitted into the hospital at Paderborn, under the care of Dr. Schmid, for symptoms indicating tubercular phthisis. He gradually became exceedingly emaciated, and at length died.

After all traces of breathing had ceased, a few irregular beats of the pulse were felt, and the eyes opened of themselves. Some small eschars artificially produced exhibited signs of suppuration on the second, third and fourth days. On the fifth, one hand was found to have been turned round; and on the sixth and ninth days a partial perspiration bedewed the skin. After this period several pemphigus-like bullæ made their appearance. The limbs remained quite pliant; the lips preserved their red colour until the eighteenth day, and the expression of the features even at this date was that rather of a living than of a dead person. At the end of the third week there was no offensive smell nor any other sign of putrefaction. —*Journ. der Pract. Heilk.*

PRESERVATION OF LEECHES.

M. Bertrand recommends that leeches after they become detached from a part should be gently passed between the thumb and fingers, (or, as it is vulgarly called, stripped) so as to make them disgorge most of the blood which they have sucked, and then be put into water moderately sweetened.

In this method leeches, we are told by M. B. may not only be kept for many years, but will retain their activity, and be fit for reapplying every third or fourth day.

Dr. Scheel has more recently recommended the following treatment as still more effectual.

The leeches should first be put upon a warmish plate, and be well besprinkled with carbonate of soda; when they have disgorged most of their blood, they should be washed several times with tepid water, then put again upon a plate and some sugar sprinkled upon them; and lastly be washed with cold water and put into a large vessel full of it, gently sweetened.

The sugared water must be changed once a day, or oftener if it becomes discoloured. Those leeches which die or even become wrinkled and faded, should always be cast away.

Dr. S. has succeeded in preserving leeches thus for a great length of time, in good health, and in a condition ready for use every six or seven days.

When there is a very great dearth of leeches, the following expedient may be had recourse to. With very sharp scissors we may cut them right across, somewhat nearer the tail than the head, and then apply them as usual. As the animal sucks, the blood trickles from the divided end. As a matter of course the attendants must be on their guard to prevent an excessive discharge by detaching them at a proper time. They are then to be gently squeezed and put into fresh water. If the divided extremity should become agglutinated together and closed, we must employ a rather firmer pressure from the mouth downwards, so as to cause the blood to force an exit. Leeches which have been mutilated in the manner above mentioned, have been used several times every day for many weeks.—*Allgemeine Medic. Zeitung.*

INJECTIONS OF COLD WATER INTO THE UMBILICAL CORD TO PROMOTE THE SEPARATION OF THE PLACENTA.

Professor Hohl states that this method, first recommended by M. Mojon, will often succeed perfectly if it be used sufficiently early, and provided the vein does not contain too much blood; for sometimes cases occur in which it is not possible to dislodge the blood which the vein contains. One injection will frequently suffice. If we listen with the stethoscope over the region of the womb, where the placenta is attached, while a quantity of water is injected into the cord, a noise or bruit coming as if from a distance is heard; this noise is quite distinct from that of any pulsation. In favourable cases the sound becomes louder and stronger, and in addition to it other bruits of a more sibilant or whistling character become audible. Professor H. states, that he never could hear any of these last described sounds in cases in which the placenta remained obstinately attached; they would therefore seem to be connected with the contractions of the uterus. These contractions are necessarily very imperfect, when the placenta remains fixed; and hence perhaps the absence of the sounds in these cases. Professor H. recommends that the injection of the cord be used even when it does not succeed of itself, and when therefore it is necessary to remove the placenta by manual assistance; it may be a serviceable adjunct.

The most frequent cause of failure with the injections alone, is spasmodic contraction of the uterus.—*Ibid.*

REMARKS UPON AN ORGANIC DISEASE OF THE LUNGS, PRODUCED BY THE IMPERFECT RESPIRATION OF NEW-BORN INFANTS.

If the respiration of a new-born infant be, from whatever cause, impeded, or rendered incomplete, the circulation of the blood, must, it will be allowed by all, necessarily be disturbed. This disturbance of the course of the sanguineous fluid is the cause, according to Dr. Joerg, of an agglutination, or "coalition," of the pulmonary cells, over a greater or smaller extent of the lungs proportionate to the amount of the morbific cause.

This diseased state is rarely the result of inflammation, or of its consequences; but solely of the non-permeation of a portion of the pulmonary tissue by the air; the cells become more and more contracted, and finally are quite obliterated. The portions of the lungs so affected sink in water, in the same manner as hepatised or solidified lung from inflammation. One of the most common causes of this diseased state is undue quickness of the delivery. It is a fact well known to accouchers, that when a child is very rapidly ushered into the world, the first act of breathing is often delayed longer than is common, and the child appears to suffer; the circulation of the blood is consequently disturbed at the same time, and the foundation of a morbid state of the lungs is laid.

Another cause is pressure on the cerebellum, either from the immoderate contraction of the uterus, or from the forceps, when the blades are too tightly compressed: a state approaching to asphyxia is thus induced, and the functions of respiration and circulation obstructed. The child is observed to be weak, and moves the limbs feebly; the limbs hang as in a palsied patient; the voice is thin and plaintive; the eyes are half opened, and the movements of the chest are indistinct, and either hurried or unusually slow. By the use of the warm bath and other means the child may be considerably revived, but the breathing remains oppressed, and each act is short, such as we observe in cases of asthma and of hydrothorax.

This description applies to those infants who are too quickly expelled: those on the other hand who are subjected to immoderate pressure usually exhibit a tumefaction of the head, a livid state of the skin, and most of the appearances of an apoplectic patient. Sometimes the breathing is not established for 15 or 20 minutes; and then it may be only imperfectly, and the child remains exceedingly weak and enfeebled. Convulsions are not unfrequent under such circumstances. When it cries the voice is puny and moaning, and the movements of the chest are at one time scarcely perceptible, and at another heaving and irregular. The livid colour of the skin becomes less, but either does not vanish altogether, or is exchanged for an unhealthy pallidity, and there is often a cold perspiration on the surface.

The mouth and eyes are usually half open. When the disease is likely to prove fatal, the skin, from being pale, becomes suddenly blue; the child is so weak that it cannot suck, or even swallow; the voice is scarcely perceptible, the pupils are motionless, the head is drawn backwards, and a slight rattling is heard in the throat. However alarming the symptoms may seem to be, they never prove fatal on the first attack; but very generally may be mitigated by appropriate treatment, the strength becoming somewhat restored, and the convulsive or spasmodic state much lessened. Perhaps the subsequent attacks may be gradually milder, and the child almost perfectly recover; but if, on the other hand, the weakness should increase, we can have small hopes of saving the little patient. Even when it does recover, the continuance of life is always precarious; for not unfrequently a bronchitic affection, such as the "catarrhuss suffocativus," supervenes and rapidly proves fatal. The partially obstructed state of the pulmonary tissue adds greatly to the danger of such attacks. The child dies suffocated, or with all the symptoms of pressure on the brain.

Dr. Joerg is of opinion that many cases of permanent morbus cæruleus are attributable to the impediment offered to the freedom of the circulation by the obstructed state of the lungs.

We may enumerate this very generally mortal affection of the heart as a fifth mode, in which the disease of the lungs usually proves fatal; the other four being apoplexy, suffocative catarrh, bronchitis, and lastly atrophy.

Our prognosis must be in most cases unfavourable; but it will, as a matter of course, be regulated by the extent of the injury which the respiratory function appears to have sustained. Of this we may form a tolerably accurate notion by attending to the breathing of the child, and observing whether it is

ever full and deep; and also by the loudness of the voice in crying.

In endeavouring to resuscitate the child at first, great caution should be used, that the system be not over-stimulated by the means employed, for a corresponding exhaustion will inevitably succeed to such a state; and besides, if there be any encephalic congestion, the evil will be aggravated. The tartar-emetic, judiciously given, may very possibly be useful, especially when the head is free from any injury, and the affection of the lungs is, therefore, more idiopathic. The warm bath, too, will be found a good adjunct; and in cases where the infant is so weak that it cannot suck, we may immerse it in a bath of tepid milk. Artificial respiration will be necessary in some cases.—*Allgemeine Medic. Zeitung.*

TREATMENT OF PORRIGO.

Dr. Cazenave observes that, unless our patients be scrofulous, or otherwise cachectic, the constitutional treatment resolves itself into the mere use of an occasional purgative and of a tepid bath. An indispensable part of the local management is cleanliness. The hair must be kept closely shaved, and the scalp frequently washed with emollient, alkaline, and sulphureous lotions, which have the good effect of separating the crusts, and cleansing all nastiness away. Dr. Biett highly praises the following formulæ.

℞. Potassæ sulphuret. ʒij.
Saponis alb. ʒiij.
Aquæ calcis, ʒviij.
Spirit. vini rectif. ʒij. Misce fiat lotio.

And—

℞. Lythargyri, ʒij.
Aluminis usti, ʒjss.
Calomelanos, ʒjss.
Adipis suis, ℥ij.
Terebinth. venet. ʒvj. Misce.

A still more effectual remedy is the ioduret of sulphur which may be used thus—

℞. Ioduret. sulphur. ℈j.—ʒss.
Adipis suis, ʒj. Misce.

Of this ointment, a drachm may be rubbed in each time.

The use of caustic, as of nitrate of silver, is to be recommended only when the disease is confined to one spot, or two.—*Bullet. Gener. de Therap.*

HÆMORRHAGIC TENDENCY IN A FAMILY.

The mother was of a delicate constitution, and liable to profuse menorrhagia. She was delivered of a boy in March, 1829. It seemed torerably healthy, although fair, or almost white.

It suffered successively from jaundice, aphthæ, convulsions, and a diarrhœa, which proved fatal on the ninth day after birth. The navel-string was constantly moist with a bloody serum, which kept oozing from its divided extremity, and resisted every styptic. When the tied portion fell off, pure blood tickled from the umbilicus, which was thus always covered with a coagulum. The scrotum, in this infant, had a dark purplish colour. Three former children of this woman died on the 8th, 12th, and the 14th days after birth, in consequence of bleeding from the navel.

The other three children of the family, although delicate, did not exhibit any hemorrhagic tendency.—*Journ der Pract. Heilk.*

CASES ILLUSTRATING THE TERMINATIONS OF OVARITIS PUERPERALIS.

The epithet puerperal, applied to this affection, is not to be considered as indicating that it occurs only after delivery. In the 4th vol. of the "Clinique des Hôpitaux," is a report of the dissection of a woman (who never had been pregnant,) in whom the right ovary was found inflamed and much enlarged, from a purulent deposit, of a most fetid character. In another case, occurring under similar circumstances, the pus

mode its escape by the rectum, and the patient recovered.

In many of its features, ovaritis bears a strong resemblance to the abscess of the iliac fossa, the history of which has been so ably illustrated by Dupuytren, Dance, and others. At present, we shall confine our observations to the mere furnishing of cases, descriptive of the different modes in which ovaritis may terminate.

1. *By Resolution.* A woman, 33 years of age, was admitted into the Hôtel Dieu on the 15th day after delivery. The labour had been painful, and the child extracted by turning. The symptoms were œdema of the abdominal parietes and of the inferior extremities, suppression of the lochia, a swelling in the left iliac region, painful on touch; strangury; whitish, creamy deposit in the urine, and sense of weight in the vagina. By active local bleeding, and appropriate constitutional treatment, this woman speedily recovered.

2. *By Suppuration.* This is a very frequent termination. The pus makes its escape either, *a*, by the rectum, as in the following case.

A young woman presented a general emaciation—slight effusion into the cavity of the abdomen, enlargement of the liver, a swelling, as large as a hen's egg, in the left iliac region, painful on pressure—amenorrhœa—urine containing a whitish substance, which appeared like pus; well-formed pus mixed with the stools: body and neck of the uterus healthy to the touch, by which it was discovered that the tumor in the groin was connected with the womb and bladder. The patient was generally feverish, and more so towards evening. Numerous leeches were applied to the swelling, and hot fomentations afterwards. The progress of the case is not known, as she left the hospital unexpectedly. It ought, however, to be stated, that she had been delivered of a seven month child three years before her admission, after a severe, but rapid labour. Three months after this date, she began to experience pains in the hypogastrium and groins, and these had continued with more or less severity ever since. In such cases of purulent diarrhœa, the pus may make its way either into the cæcum, the arches of the colon, or into the rectum. In the following case, it seems to have escaped into the left arch of the colon.

A woman was seized, on the second day after delivery, with all the symptoms of peritonitis; on recovering from which, she had an attack of phlegmasia dolens. While under treatment for this, a painful tumor made its appearance in the left groin. This attack of ovaritis was no sooner over, than she was again seized with peritonitis, in consequence of imprudently walking on a cold stone floor. On the 22d of March (seven weeks after her admission into the hospital), the left limb was still œdematous; and on this day was first observed purulent matter, mixed with the alvine evacuations. The great relief which the patient almost instantaneously experienced in the inguinal swelling, on the occurrence of this purulent discharge, could leave no doubt but that it proceeded from the ovary, which had very probably become adherent to the sigmoid flexure of the colon. During a space of two months the discharge ceased, and returned several times; and even when the patient left the hospital, on the 23d of June following, there still remained a degree of engorgement in the left groin, and slight œdema of the limb.

b. The pus may find an exit by the bladder of vagina. MM. Husson and Dance found that this had taken place, in a young girl who died of the disease.

c. It may follow the course of the round ligament, and escape at the inguinal or crural apertures. Dupuytren has seen numerous cases of such a termination. Under these circumstances, the tumor may be mistaken for an aneurism, as it frequently pulsates, from being in close proximity to the iliac artery. In opening abscesses at this point, it is necessary to use considerable caution, as instances have been known where the artery has been inadvertently wounded.

d. It may pass into the abdominal

cavity, and either become encysted, or induce fatal peritonitis: and, *e*, lastly, it may be discharged at some point of the hypogastric or iliac regions (besides the inguinal aperture), in consequence of the ovary becoming adherent to the abdominal parietes, and the matter gradually working its way out. This termination is illustrated by the following case.

A woman, twenty-four years of age, was delivered of her sixth child on the 17th Nov. The labour was rather painful and difficult. Imprudent exposure to cold was quickly succeeded by an attack of fever, by suppression of the lochia, and a tumefaction of the right groin. When received into the hospital, the tumor was of the size of an egg, and the limb was œdematous.

In spite of repeated leechings, &c. the suppurative process commenced, and, by the end of January, several fistulous openings through the abdominal walls had taken place: and from these a copious discharge of pus flowed out. The patient gradually regained her health, and left the hospital, quite cured, a few weeks afterwards.

In the 4th vol. of the Bibliothêque Médicale is narrated the case of a lady, in whom two iliac abscesses, supervening upon an attack of entero-peritonitis, opened, the one into the sigmoid flexure of the colon, the other into the cæcum—and this last also projected outwardly. An incision was unfortunately made into it, and a stercoral fistula was the consequence.

3. *By Ramollissement.* The ovary becomes tumefied, infiltrated with a sero-purulent fluid, and either friable and easily lacerated, or extremely soft and yielding in texture. Dr. Montault saw an example of this degeneration in a young girl, who died of puerperal peritonitis. The labour had been quite natural and easy, but she had suffered much from mental anxiety, and had been exposed to cold, when she was brought to the hospital after delivery.

4. *By Enlargement and Induration.* A young woman was seized with metro-peritonitis, five days after her discharge from the Maternité, where she had been safely delivered. She died on the sixth day of the disease, having, on the day or two preceding her dissolution, exhibited all the symptoms of ataxic fever (from the absorption of purulent matter into the system.) On dissection, a small quantity of pus was found infiltrated into the superior and lateral portions of the uterus. The right ovary was more enlarged than the left, hardened in texture, and of a yellowish colour; firm pressure forced out only a few drops of pus. This state of induration will often continue for a long period without affecting the general health; although it must be confessed that, not unfrequently, the patient is annoyed with colicky pains, proceeding from the site of the ovary, with dysmenorrhœa and other troublesome symptoms.

When these are exceedingly obstinate, and progressively become more distressing, we may suspect that the enlarged and hardened viscus is degenerating into a scirrhous, lardaceous, osseous, melanotic, or hydatidic condition.—*Journal Hebdomadaire.*

CASE OF CYANOSIS, OCCURRING ON THE NINTH DAY AFTER BIRTH—CURE.

The infant, when born, appeared quite healthy and strong, and indicated by its lusty cries a vigorous vitality. It exhibited not the slightest trace of any cutaneous discoloration, nor of any impediment in the breathing.

The mother being unable to suckle her child, it was reared with spoon food; but in the course of a few days, symptoms of disordered stomach and bowels, announced by restlessness, fever, green stools, and griping, set in. These were for a short time relieved by carminative medicines, by rubbing the abdomen with an oily balsamic embrocation, and by camomile enemata. On the ninth day, the infant became much worse, and to the already-mentioned disorders were added convulsions, and an unexpected invasion of "morbus cæruleus" over

the whole surface of the body and limbs. Every part, including even the tongue and nails, were stained of a deep blue colour. The tender patient seemed to suffer much distress, as it kept constantly moaning most piteously, and drawing its limbs convulsively together. The temperature of the surface was somewhat lower than in health—the pulse was small and contracted, but not quickened—the breathing was short, feeble and irregular, deep at one moment, and hurried the next.

Whatever opinion might be formed of the proximate cause of the purple colour, it could not be overlooked that its invasion had been preceded and accompanied by a convulsive state of the system, arising from severe colic: moreover, it could not reasonably be attributed to any transitory retardation of, or obstruction to, the course of the blood, else it must have speedily passed away; and we were, therefore, obliged to suspect that, in consequence of the pulmonary circulation being disturbed, and thus occasioning an excessive accummulation of blood in the right cavities of the heart, during the recurrence of the repeated spasms, either the foramen ovale or the ductus arteriosus had been forced open, and allowed the admixture of the venous with the arterial blood. The prognosis was, therefore, most unfavourable; and the indications of treatment were, to correct the disordered state of the bowels, and to allay the general distress.

For this purpose, a tea-spoonful of the following mixture was ordered to be given very frequently:

℞. Magnes. carbon. ʒj.
Aquæ fœniculi, ʒj.
Mucilagin. Arab. ʒss.
Moschi Orientalis, gr. vj.
Syrupi rhæi, ʒss. M.

An occasional warm bath and assafœtida enemas were also prescribed. Little good was derived from these remedies, and, as the child evidently began to be weaker and more exhausted, a nervous powder, containing one grain of musk, was given every hour or two. This treatment was continued for two days (so that 26 grains of the musk were taken in this period,) with manifest advantage; the heat of the body became greater, the circulation and breathing less disturbed, and the child more lively and comfortable—the blue colour, however, was unabated.

But, even in this symptom, a favorable change soon began to be perceived. The musk was persevered in, one grain being given every three or four hours, and a tea-spoonful of the magnesia and rhubarb carminative occasionally. An aromatic bath was also used twice a day.

The case went on progressively to a complete cure; the blueness of the skin gradually subsided, and altogether disappeared about the 12th day from its invasion.—*Journ. der Pract. Heilk.*

On the External Use of Croton Oil.

This valuable drug was first made known to the profession by Dr. Connwell, in 1820, and subsequently its therapeutic effects were investigated by MM. Recamier, Bally, and Majendie; their researches were, however limited to its internal exhibition, and it was not until 1831 and 1832 that its great value, as a counter-irritant to the skin, was clearly proved by Professor Andral.

External Use. With one or two fingers, or, if we choose, with a dossil of lint, wetted with the oil, we continue rubbing the skin for the space of about 10 minutes. This operation should never be entrusted to the patient himself—in two cases at the Hôpital de la Pitié, we observed violent ophthalmia and inflammation of the penis and scrotum induced, no doubt in consequence of the mere inadvertently carrying their fingers to their eyes and genital organs.

The eruption, which is brought out by the external use of the croton oil, may be divided into five stages: 1, Rubefaction of the skin—2, Formation of vesicles—3, Conversion of the vesicles

into pustules—4, Desiccation of the pustules—5, Desquamation and falling off of the crusts.

These different periods or stages are not uniformly to be observed; they are most conspicuous when the friction has been made with ten or twelve drops of the oil, on a part of the skin where there is much subjacent cellular tissue. The patient at first experiences a tingling warmth, which is quickly followed by a considerable redness, extending an inch or so beyond the sphere of the rubbing. These appearances are generally noticed within 7 or 8 hours, sometimes in 1 or 2, at other times not for 10 or 12 hours; the differences of time required depending, no doubt, on the delicacy of the skin. In from 14 to 26 hours, myriads of small, close-set vesicles make their appearance upon the inflamed skin. Occasionally, a few of the vesicles become greatly magnified, forming true phlyctenæ, filled with a turbid lymph, which speedily change into a purulent matter. In 12 out of 31 cases, reported by our author, the vesicles passed to desquamation without undergoing the suppurative process.

The usual period at which the serum becomes puriform, is from 36 to 54 hours after the application of the oil. In one or two days subsequently, the pus begins to exude, and forms greyish crusts over the pustules, and the desquamation is generally over by the 8th or 9th day. If the croton oil is rubbed upon any part which has been recently vesicated, the eruption is, as we might expect, more speedy and abundant.

In six cases, it was tried whether the rubbing in of the croton oil, mixed with an equal quantity, or with rather more, of that of almond oil, over the arch of the colon, would produce any purgative effects;—an eruption, which reached the second stage, was brought out, but the action of the bowels was not affected. Similar results were obtained when the pure oil, to the amount of 20 drops, was rubbed round the umbilicus. Dr. Rayer states that he has repeatedly induced free action of the bowels, by putting two or three drops of the oil upon a surface, denuded of its epidermis by a blister. We have not repeated this experiment.

Therapeutic Effects. The diseases in which the external use of this remedy has been employed with most advantage, are chronic rheumatism, arthritic pains, pleurodynia, paralysis, stomatite, laryngitis, and chronic gastritis.

CASE 1.—*Sciatica.* A man, aged 48, was admitted into the Hôpital de la Pitié on the 6th Dec. 1831. For five months preceding, he had suffered severely from pain, beginning in his right hip, and extending down the back of the limb, along the course of the sciatic nerve to the outside of the leg. For two months and a half he was obliged to keep the house, and, upon then attempting to resume his work, the pain returned with all its former intensity. He attributed his complaints to exposure to wet and cold. The only treatment which had been followed before his admission was blistering the limb; but he had derived no benefit. When examined in the hospital, the pain was found to be increased by pressure, and by the heat of the bed; he complained of headach, but in other respects his general health was not amiss. Eight drops of croton oil were ordered to be rubbed in over the origin of the sciatic nerve. This produced considerable itching and redness, but no vesicles; and, the pain being not relieved, 18 drops of the oil were rubbed along the whole trajet of the affected nerve. Next morning, the outer side of the leg was much reddened, and vesicles had formed over the trochanters. On the 11th, ten drops more were rubbed in between the trochanters.—12th, The eruption considerable—some large papulæ had appeared over the fibula. The neuralgic pain almost gone—only the heat and itchiness of the eruption are troublesome. He left the hospital in a few days, quite well.

CASE 2.—*Sciatica.* A man, aged 50, entered the La Pitié Hospital in Dec. 1831, suffering from sciatica of six weeks' standing. Twelve drops of cro-

ton oil were well rubbed in between the trochanters, along the outside of the thigh, to the lower third of the leg; a copious eruption was induced, and already, upon the second day, the patient felt relieved. In six days more he was considered cured, and left the hospital, quite delighted with the rapidity of his cure.

He had experienced two severe attacks before—once in 1812, when he was treated in the Hôtel Dieu by M. Recamier, with the essence of turpentine—at that time he was six weeks in the hospital; and again, two years ago, after exposure to wet and fatigue, he was admitted into the Hôpital de la Charité, under the care of M. Fouquier, who employed blisters and friction, with anodyne balsam. He was cured then in three weeks.

Case 3.—*Sciatica.* A stout, plethoric man, 45 years of age, had, for about a month, felt general indisposition, frequently-returning shiverings, and neuralgic pain of the left extremity. He was taken into the La Charité Hospital, and there treated by M. Rayer with repeated venesection, the application of 50 leeches to the hip, and 40 more to the back of the thigh. The essence of turpentine was administered inwardly in frequent doses; and besides all this, the vapour-bath was used fourteen times. This treatment was continued for three weeks, and, as little benefit had been obtained, the patient left the hospital, and a few days subsequently entered the La Pitié. At that time, the pain extended from the ischium down to the ankle-joint, and it was increased by walking, and by the heat of the bed: the lower part of the leg was annoyed with a feeling of formication. The digestive organs were in good order. Fifteen drops of croton oil were rubbed in over the origin of the sciatic nerve. On the following day, 20 drops more were rubbed over the tract of the affected nerve; a vesicular eruption made its appearance, and the neuralgic pain was already diminished. On the 29th (3d day,) twenty drops were again ordered. 30th. The eruption is very abundant—the vesicles have changed into large pustules. The patient complains only of the itching; the pain is gone. He remained a few days longer in the hospital, until the crusts separated; and, on the 12th day after his admission, he was discharged cured.

A case of chronic rheumatism of the shoulder-joint, supervening on typhus fever, is given, in which general and local bleeding, blisters, &c. had been fruitlessly used for the space of six weeks. The friction with a few drops of croton oil was employed twice; and on the third day the patient could move his arm—although not entirely cured, he was very much relieved, when he left the hospital.

Case 4.—*Anæsthesia, or Paralysis of Feeling.* Pierre Dumas was admitted into the Hôpital de la Pitié on the 9th Nov. 1831. Seven months before he had an attack of erysipelas of the face, and the inflammation had extended down the left side of the neck. Three weeks after his recovery from this illness, he was suddenly seized with dimness of sight and stunning noises in his ear; these symptoms were not constant, but came and went, returning every 2d or 3rd day.

This state of things lasted for about two months, during which nothing had been done in the way of medical treatment; and then there supervened a general numbness of the whole left side of the face, and the sight of the left eye became affected at the same time—the left nostril lost the sense of smell, and the left side of the mouth its sense of taste. When he was shaving, he felt as if some foreign body was placed upon his cheek; and, in chewing, the food seemed like earth in his mouth. He complained of a very severe frontal cephalalgia—the tongue was loaded, the abdomen soft, the bowels rather relaxed, pulse 90, breathing not affected. He was ordered to be largely bled from the arm—to use a mustard-bath to his feet at night, and to be put on a light emollient diet.

10th. No relief; half a drop of croton oil in two pills at bed time.

11th. Twenty liquid stools from the pills; headach much better; paralysis

not affected. Eight drops of the oil to be rubbed upon the left cheek and side of the neck.

On the following day the skin was well reddened, and a large crop of confluent vesicles had made their appearance: to our great surprise he had already recovered his sight, taste, smell and feeling. The fifth period of the eruption, or that of desquamation, was not over until the thirteenth day. He did not leave the hospital till the 12th December, having had a threatening of a relapse of the numbness in a slight degree; but this was checked by a bleeding from the foot.

CASE 5. *Angina Laryngea—Aphonia.*—An itinerant singer of the streets of Paris, presented, upon his admission, the following symptoms; a frequent dry and harsh cough: pain over the larynx, increased by swallowing; breathing sibilant; voice almost entirely gone, so that he could not make himself understood. Upon examining his throat, the velum and its pillars were observed red and swollen. Venesection, a sinapised foot-bath and emollient drinks ordered. The following day he was much better; the general symptoms were relieved; but the aphonia was as complete as before. Ten drops of croton oil to be rubbed on the front of the neck. In 24 hours there was a copious confluent eruption; the voice was regained, and the deglutition more easy. He left the hospital three days afterwards quite cured.

CASE 6. *Diptherite, or Stomatitis pseudo-membranacea.*

An old soldier, upwards of 60 years of age, exhibited a specimen of this disease to our notice in the Hôpital de la Pitié.

It had already existed for eight days, and had made considerable progress; the inside of the mouth and the surface of the tongue being covered every here and there with small oblong crusts, or laminæ of a greyish-white colour, set upon red, inflamed, and swollen bases; the submaxillary glands were painful and enlarged; the breath excessively fœtid, the lips swelled and of a purple hue; and the deglutition very difficult. Sixty leeches had been applied at two different times behind the jaws; and poultices and a multitude of gargles had been used without much good for the poor patient, who could scarcely articulate a word. Eight drops of croton oil were ordered to be rubbed in upon the sides of the neck. On the morrow a copious eruption of vesicles had appeared, and considerable relief was already experienced. From this period the disease appeared to have undergone a favourable change, and in fifteen days more, under the use of acid gargles and of poultices, it was altogether removed.

CAUSES OF THE SHORTENING OF THE LIMB IN MORBUS COXARIUS.

M. Dzondi, in a remarkably perspicuous essay on this disease, observes, that the shortening of the limb which takes place in the third stage of hip-joint disease, is not attributable solely and on all occasions to the actual dislocation of the head of the bone from its cotyloid cavity. It may be produced, to a certain extent, by other causes. Among these he enumerates—

1. Sympathetic irritation of the cervix femoris, occasioning an alteration in its direction; so that the angle forming between it and the shaft of the bone becomes more acute.

2. The extenuation or destruction of the articular cartilages and of the synovial membranes.

3. The irregularity and unevenness of surface which the head of the bone and the acetabulum acquire, and which prevent their accurate contact.

4. The os femoris itself undergoing a certain change, and becoming somewhat shorter.

5. The perforation of the fundus of the acetabulum, and the protrusion of the ball of the former through it.

In an earlier part of the essay M. Dzondi has most accurately described the symptoms of the three successive stages, viz. the inflammatory, the purulent, and lastly the third, when the pus extends and becomes diffused in different directions; sometimes causing description of the capsular ligament,

and destruction of the bone; at other times leaving the joint intact. He alludes particularly to the frequently committed mistake of supposing the first stage to be an attack of common rheumatism, and earnestly urges upon his readers the importance of comparing the lengths of the two limbs, before they determine their diagnosis. In rheumatism no change is to be perceived, but whenever there is inflammation of the caxo-femoral joint, he assures us, from an extensive experience for the last thirty years, that there is invariably an elongation of the limb. However severe may be the pain, if only the swelling around the joint, and the elongation of the limb be absent, M.D. is satisfied that there can be no inflammation of the articular surfaces, and consequently no grounds for alarm. The seat of the inflammation at first is always exterior to the joint; it is neither in the bone itself, in the synovial membrane, fibro-cartilage, nor in the synovial glands, but invariably, according to the experience of M.D. is in the outer surface of the articular capsule, in the fibrous structures about it, and in the periosteum of the bone round the circumference of the acetabulum, and of the upper part of the femur itself. The limits within which the inflammatory process is usually at first circumscribed, are about one inch in extent all round the rim, or edge of the acetabular cavity; but the whole of this space is not generally affected simultaneously; the irritation may be concentrated either at one part of the capsule, or of the periosteum of the os ilii, or of the cervix femoris, or round the border of the acetabulum, or on the great trochanter.

By far the most common exciting cause is the local application of cold; and hence it is that in children it may frequently be traced to lying down on the damp grass when they are heated by play. A scrofulous diathesis indeed is often the root of the evil; but in very many cases there is not the slightest taint of that disease.

If accurately recognized and judiciously treated at first, we may almost always calculate upon a cure. Conjoined with entire rest, local bleedings, &c. M. D. urgently recommends the internal employment of emetic tartar in this, and indeed in all diseases which are induced by exposure to cold, and checked perspiration. He regards it as by far the most heroic of all antiphlogistic remedies. It is to be given in full doses and repeated every quarter of an hour, till the desired effects are obtained. He usually dissolves eleven grains in six ounces of water; and of this solution he orders one large tablespoonful at a time. Sometimes the addition of opium is necessary to induce the tolerance of the drug, or to counteract its effects upon the bowels.—*Algemeine Medic. Zeitung.*

PURULENT OPHTHALMIA OF INFANTS.

The treatment of this common and most dangerous affection adopted by M. Sanson at the Opthalmological Clinic in the Hôtel Dieu, consists in the application of leeches and the use of other antiphlogistics until the purulent secretion commences; he then trusts chiefly to the external employment of astringents; and of these he prefers the nitrate of silver.

It is most effectual in the solid form; let the eye-lids be everted, and over their surfaces, after being wiped dry, let the caustic be freely applied. There is no occasion to wash the eye afterwards; the small quantity which may adhere will be dissolved in the tears, and will form an excellent collyrium. During the day, the following wash may be used frequently.

℞. Argenti nitrat. gr. iij.
Liquor plumbi, ℥lvj.
Aquæ distill ʒiv. M.

The system must be supported with mild, but nourishing food.

Mr. Wishart of Edinburgh praises highly the use of a solution of sulphate of zinc as a local application.

His formula is—

℞. Zinci sulphat. gr. xxiv.
Aquæ distill. ʒx. solve dim.
Adde Liquor plumbi, ʒss.
Tinct. camphoræ, ʒss.—j.
Coletur, ut fiat collyrium.

Other British surgeons prefer an alum wash, containing from two to four grains of the salt to an ounce of water.

ON THE RELATIONS OF THE CRANIUM TO THE ORGAN OF HEARING.

Professor Mojon, of Geneva, in a memoir lately read before the Royal Academy of Medicine, has suggested some novel and very interesting speculations on this subject. Hitherto we have been led to view the cranium only as a safe recipient of the cerebral mass and of its appendages; but M. M. ingeniously supposes that it serves at the same time as an harmonic case, or drum, to the auditory organs. Treviranus, Esser, and others had already observed that the tympanum is not essentially necessary to the transmission of sounds, and that the sonorous undulations may be conveyed to the nerve of hearing by the medium of the cranial bones; but no one, before our author, had attracted the attention of physiologists to the curious relations which seem to exist between certain states of the crianial bones and the power of discriminating musical sounds.

The post mortem examination of Dr. Bennati, first suggested to M. M. the following speculations, and they arose from his observing that the bones of the cranium were much thinner than usual, translucent at many points, and soldered together along the line of the sutures.

A similar condition of the cranial bones has subsequently been found by him in the body of another celebrated musician.

This coincidence of cranial attenuation, and musical endowments, led M. Mojon to consider whether it was possible that the one might be related to the other as cause and effect; and he has been induced by numerous observations to infer that the cranium is by no means quite passive, in the perception of sounds, that differences in the thickness of its walls may have very considerable influence in determining the degree of acuteness of the faculty, and therefore that it may be regarded as a sort of harmonic case which communicates its vibrations to the organs of hearing.

In confirmation of these views our author alludes to the cases of deaf people, who often can perceive very distinctly the sounds of a piano, or organ, by applying one extremity of an iron rod to their forehead, and the other to the instrument; and who may be made to hear what is said to them if only the voice is directed by a speaking trumpet upon some part of the forehead. It is not unfrequently also that a person whose hearing is indistinct, and who chances to wear a wig, can listen with much greater facility when the head is quite bare, than when it is covered.

The curious observations of M. Perier, on patients who had been trepanned, and who were found to hear quite distinctly any sound directed upon the cicatrix, even when both ears were effectually plugged, (vide our last No.) may also be mentioned as illustrative of M. Mojon's speculations.

Comparative anatomy shews that in a number of animals the transmission of sounds to the organ of hearing is assisted by numerous large sinuses, hollowed out in the bones of the cranium. To us it seems by no means improbable that the musical endowments of the feathered tribes may be in some degree at least modified, or influenced by the very attenuated condition of their cranial bones, and by the existence of the elastic lamellæ, which are found between their supernumerary cavities, as well as the passages of canals which extend into the labyrinth.

The only practical deduction from the preceding views, regards the assistance which may possibly be derived from attention to them, in our diagnosis of deafness, when we wish to discover whether it is owing to a palsied state of the auditory nerves themselves, or merely to some defect or injury of the adjunct members of the auditory apparatus. The every day occurrence of a person squeezing his head with both hands to deaden any very loud noise, may very probably effect the desired purpose, as well by interrupting the cranial vibrations, as by the direct obstruction of the auditory passages. —*Journ. Hebdomad.*

III.

CLINICAL REVIEW.

Some Remarks on the Venereal Condyloma and on Venereal Warts. By Henry James Johnson, late House-Surgeon to the Lock-Hospital.

The venereal condyloma does not appear to me to have received so much attention as it merits. It is commonly considered to be merely the result of acrimonious secretions, or of want of cleanliness: and personal attention, with simple remedies, are usually considered, sufficient for its cure. When it does not yield to means of this description, escharotics are frequently applied with freedom, but many practitioners appear, if I may venture to make the observation, to be destitute of definite ideas of its nature, and of any appropriate system of management.

It is my object in this paper to lay before my readers, in as clear and concise a manner as possible, the most important facts connected with this subject—to endeavour, from the phenomena, to determine the nature of the venereal condyloma—to distinguish its varieties, if such exist—and to aim at founding, on something like determinate arrangement, a definite, or, at least, consistent mode of treatment. There are numerous difficulties in the path of the inquirer, and perhaps I may hope to stimulate others, possessed of greater powers of analysis, to effect their removal more successfully than myself.

It is a rule, I believe, in logic, that disputants agree in the definition of the name and nature of their subject. The neglect of this precaution has occasioned much dispute in the world of medicine. It is therefore necessary to acquaint my readers with what they are to understand by the term venereal condyloma. I mean by it an interstitial thickening of the cutis, more or less disposed to circularity, smooth, or, at least, not fissured nor lobulated like warts upon the surface, and possessed of considerable vascular organization. The distinctions between this and wart are apparent, but they glide into each other, and instances occur in which it is not easy to assign the preponderating character.

It may not be out of place to exhibit the imperfections of the common descriptions of venereal condyloma. Mr. Cooper's Surgical Dictionary, which is generally admitted to contain an epitome of the actual state of surgical knowledge, disposes of this affection in a summary manner. The whole of the article is comprised in three sentences.

"Condyloma," says Mr. Cooper, "is a small, very hard tumor. The term is generally applied to excrescences of this description about the anus. The practitioner may either destroy them with caustic, tie their base with a ligature, or remove them at once with a knife: the first is generally the worst; the last, the best and most speedy method."—*Sixth edition*, 1830.

It will probably appear, that brief as the foregoing description is, inadequate as it must be to portray an affection so frequent and so singular, it is long enough to contain some serious errors. No reference is made to the complaint in the work of Dr. Titley, which purports to treat of the venereal disease—nor in that of Mr. Carmichael—nor in others to which it is unnecessary to allude. It is sufficient to observe that, so far as I know, there is no good description of the condyloma, and that what I am about to offer is exclusively drawn from personal observation. This must be received as an apology for its defects.

The venereal condyloma, or that condition I have endeavoured to define, appears under three varieties of form. It is probable, however, that they are rather degrees of the same complaint, than strict and separate varieties. The division is necessary for convenience of description and methodical arrangement, but the practical surgeon disre-

gards at the bed-side these artificial separations of phenomena naturally connected with each other.

The most simple form of condyloma is a flat, superficial, nearly circular deposit in the cutis. It is soft, and smooth upon the surface—it varies in thickness from that of a sixpenny to that of a penny-piece—in circumference it seldom exceeds the former, and is often little larger than a split-pea—it is evidently vascular—and its tint is usually redder than that of the surrounding skin.

Like the other varieties, it is much more frequent in women than in men, indeed I have seen few examples of it in the latter.

Its situation in both is that which is most favourable to the production and maintenance of heat and moisture, and to the lodgment of discharge from the urethra or vagina. In females, for instance, the lower half of the labia, especially their internal surface—the perineum—the nates were opposed to each other, and contiguous to the anus—the thighs where they join the perineum, are the parts where condylomata luxuriate. In the male, the lower surface of the penis, where it hangs against the scrotum—and the sides of the latter, where they meet the thighs, are the usual situations for their growth. A male out-patient of the hospital had so numerous an array of these formations that his genital organs wore a singular appearance; the scrotum presented a ridiculous resemblance to those antique shields, which are closely studded with flat circular bosses.

In either sex this form of condyloma is accompanied with discharge from the urethra or vagina. It is more than probable that it never occurs except as a consequence of such discharge. The circumstances, the habits, and the conformation of the female render her more liable to profuse secretion from the genital organs than the male. In the lower class of women that infest the streets, and form the majority of the inmates of the hospital, this form of condyloma is extremely frequent. The accounts which they give of their complaints can seldom be depended on, yet they usually admit that discharge preceded the appearance of the condyloma. Yet the latter would seem to occur more readily in some individuals than in others. It may be presumed that in such instances the secretions are peculiarly acrid.

The discharge that attends condyloma is commonly yellowish, profuse, and thin. It is, in fact, chronic gonorrhœa, and the more severe symptoms of that complaint are comparatively rarely present.

Perhaps it would be better to dispose of this, before I proceed to the other varieties. The treatment is the only point which requires farther notice. It consists of two items—prevention and cure: prevention of all that excites the morbid growth—removal of that which has been formed.

The preventive treatment is simple and obvious. Cleanliness—the regular use of the hip-bath—a mild, unirritating diet, comprising little animal food, and no stimulating fluids—aperients—astringent injections thrown into the vagina or urethra. A remark may be made with respect to aperients and injections. It is usually better to commence the former with some doses of calomel or blue pill. This may be given every night for a few times, and may then be continued on alternate nights for a week or ten days: a draught containing senna and the sulphate of magnesia being taken on the following mornings. Afterwards, aperients, not containing mercury, must be steadily exhibited. The combination of rhubarb and magnesia, or that of the sulphate of the latter with the carbonate generally answers very well.

I think that astringent injections are preferable to those of a stimulating nature. The injection of lead and decoction of poppies, or of alum and decoction of oak bark, is commonly more effectual than that of the sulphate of zinc, of the oxymuriate of mercury, or even of the nitrate of silver, much as the latter has been lauded.*

* The reader may refer to two papers on Gonorrhœa, published in the

The removal of the condylomatous deposites that are formed is a matter of importance, and at times, of difficulty. It is singular that they yield much more readily in some cases than in others. Excision is almost impracticable, certainly improper—the ligature cannot be applied—powerful escharotics are usually unnecessary, and therefore, from the pain they occasion, reprehensible. Sometimes the steady use of cloths dipped in powerful saturnine lotions is sufficient, when combined with the remedies already pointed out. At other times this will not succeed. In most cases the lotion of the oxymuriate of mercury answers remarkably well. It forms the staple application of the hospital. At first it may be used of the strength of half a grain of the oxymuriate to the ounce of distilled water; the proportion of the former being gradually augmented, according to circumstances, to two grains, or even to three. The condylomata may be bathed with this wash twice or thrice in the day, and lint dipped in it should be constantly applied to them. I should state that I have seen this occasion salivation.

The second variety of condylomatous affection would appear to be merely an advanced degree of the former, and yet there are attendant circumstances which render both it and the succeeding peculiarity worthy of attention. They constitute a frequent form of venereal sore, and are often followed by secondary symptoms. I suspect that the descriptions of the elevated sore, contained in the works of some writers on venereal diseases, are partially derived from the kind of condyloma to which I shall now draw attention.

The second variety of condyloma is distinguished from the first by the fact of ulceration having taken place upon the surface. Each particular condylomatous deposit is a sore. On some, the ulceration is very superficial, the surface resembling mucous membrane, or very fine cuticle, in appearance; on others it is distinct flat ulceration; and on others, again, the ulceration may be rather cupped. The tint is generally red, seldom, except in the cupped ulcerations, yellow. The base, or substratum, of all is firm, for the obvious reason that each is a condylomatous deposite. For the same reason all the ulcerations, or sores, are raised above the level of the neighbouring integuments, all being, therefore, more or less elevated sores. The elevation depends on the existence of the condyloma, not on changes dependent on the sore itself, a distinctive fact which should not be forgotten.

The essential features of these condylomatous sores may be briefly recapitulated—their number, size, and situation following the laws alluded to in the description of the simple condyloma—their elevated character—the flatness of their surface.

These condylomatous sores at times affect a form which is rather peculiar. A row of ulcerations may be seen on the free edge of either labium, extending from the upper to the lower commissure, corresponding upon either side, and looking not unlike a row of beads. This form of sore is usually small, not exceeding, perhaps, hardly equalling in size a silver twopenny-piece.

The ulcerated condyloma is palpably possessed of high contagious properties. Opposite surfaces infect each other, and wherever the discharge descends, fresh sores will usually spring up. I have seen them, in uncleanly women, stretch in scattered order, down the inside of the thigh to the knee. The bead-like sores upon the labia are evidently dependent on the power of infection possessed by the discharge.

The ulcerated condyloma, like the simple form, is much more frequent in women than in men. Probably, the majority of the women received into the hospital display this kind of ulceration.

It is usually attended with profuse vaginal or urethral discharge. I was tempted, in many instances, to examine the interior of the vagina with the speculum. I must own that, with the

38th and 39th Numbers of this Journal. They contain the author's views upon this subject, although they require rearrangement.

exception of redness of the mucous membrane, and in a few instances, something like abrasion, I found no appearance to satisfy my curiosity.

Such is the description, imperfect it is true, which my observations enable me to offer. If it leads other surgeons to study the affection with more care, and to discriminate its characters with more success, all I can venture to expect will be obtained.

It remains for me to advert to those secondary consequences of the ulcerated condyloma, which entitle it to rank amongst the forms of syphilitic sore.

Those secondary consequences consist of bubo, ulceration of the tonsils, a peculiar affection of the lip and of the tongue, and stains or scaly eruptions on the skin.

Bubo is seldom noticed in the simple form of condyloma; but as that is an effect of chronic discharge, and as enlargements of the inguinal glands, from irritation, may at any time accompany such a condition it cannot be a matter of surprize if bubo does at times occur. In the simple condyloma bubo very seldom suppurates, at least, I have rarely observed it to do so. Yet the suppuration of a bubo depends so much on the conduct of the patient and the treatment of the surgeon, that no important inferences can be founded upon it.

In the ulcerated condyloma, bubo is more frequent, and apparently, more disposed to suppuration. Yet the latter event is uncommon, even in the class of persons received into the hospital, a class in whom every circumstance is present which can aggravate venereal symptoms.

The ulcerated form of condyloma has seldom existed for any length of time, without the occurrence of ulceration of the tonsils. This is usually of a well-marked character. The tonsils are commonly enlarged, sometimes very much so. Their surface displays a peculiar whitish ulceration. For the most part this is superficial; I have never seen it deep. Sometimes the ulceration is of a yellowish tint, with little enlargement of the tonsils, but the former state is by far the most frequent. Indeed the experienced surgeon may in numerous instances predict this state of tonsils from observing the condition of the condyloma. I would wish to draw particular attention to these circumstances, as the combination of white ulceration of the tonsils with condyloma has never, so far as I know, been pointed out. Indeed, I am not aware that any of the secondary symptoms from condyloma have been noticed.

Sometimes the soft palate displays the same kind of ulceration as the tonsils. It is generally free from it, and merely exhibits an increase of vascularity.

The eruption on the skin consists of the mere stain, or of spots of a scaly character. The latter may assume the form of the lepra, the psoriasis, or the desquamating tubercle. The secondary syphilitic eruptions will be noticed more fully in a future paper. My remarks at present will be very brief.

The eruptions in question appear to admit of a natural arrangement into three leading classes—the papular eruptions, which evince a disposition to the formation of small vesicles or pustules at the summits of the papulæ—the pustular eruptions, on the one hand, of only small pustules, which approach to papulæ in character, and, on the other, comprising rupia, and ecthyma—and the scaly eruptions, with which must be ranked the pityriasis-like stain.

An able and experienced modern author, Mr. Carmichael, of Dublin, has attempted to prove that certain eruptions generally follow certain sores. On another occasion I may offer some reasons for dissenting from this doctrine. At present it may perhaps be sufficient to observe, that certain eruptions predominate in certain states of constitution. This is not the expression of the whole truth, but the state of constitution is extremely operative in determining the kind of eruption, as the nature of the ulceration of the throat.

It would exceed my limits and be inconsistent with my plan to go into this subject more deeply. I must therefore

return to the primary statement, that in cases of ulcerated condyloma the patient is frequently affected with eruptions on the skin, consisting of mere stain—of lepra—of psoriasis—or of desquamating tubercle. A few words on each may probably be permitted.

The stain is usually of a yellowish, somtimes of a purplish brown tint. It is of variable intensity, being sometimes very deep in colour, sometimes almost imperceptible. It consists of patches of irregular form, and of small, though indefinite, size. They are usually clustered. They are most apparent on the lower part of the abdomen, the breast, and the back part of the neck. The cuticle is slightly disposed to scale. There is no appreciable deposite in the cutis.

Of the lepra I need not speak, as Bateman has drawn it in his plates. In lepra there is a manifest deposite in the cutis, and the cuticle desquamates upon it.

The psoriasis, I must be pardoned for employing the term, as a better fails to present itself, consisting of small separate deposites in the cutis. They approach in size to split peas, are sometimes confluent, of brownish red colour, flat, and desquamating on the surface.

The tubercle is formed of a more round and bulky deposite than the former. It feels like a pea in the cutis. Its tint is commonly more florid. It desquamates upon the surface.

The analogy between these four forms of eruption is shown by two circumstances; first, by their frequent coexistence, the same patient displaying two or even all at the same time; secondly, by their succession, one very commonly following the other.

These eruptions are not in themselves an evidence of a bad condition of the system. *That* is marked by the pustules which end in ulceration and in crust. In these eruptions, the tendency is to deposite, rather than to ulceration, an important feature. Previous to quitting this subject I may mention, that in all eruptions the patches are usually larger, and the disposition to crust is greater in the lower extremities, than in the trunk or in the arms.

I stated that a peculiar affection of the lip and of the tongue must be ranked among the secondary symptoms of condyloma. I have only seen one instance of each.

The affection of the lip occurred in a girl. The lower lip was nearly double its natural size, tumid, and rather everted. The epithelium was whitish and opaque, and constantly separated in distinct scales. There was also a superficial whitish ulceration on parts of the surface of the lip. The girl had enlarged and slightly ulcerated tonsils.

The affection of the tongue was observed in a middle-aged female. The tongue was enlarged, fissured in various directions, generally unnaturally florid, with here and there yellowish white ulcerations in hollows or in fissures.* The inner surface of the lower lip was similarly altered. The gums were tumid, soft, partially ulcerated.

These are the chief circumstances connected with the history of the ulcerated condyloma. I have endeavoured to portray them with conciseness and fidelity. There are several omissions of which I am aware—probably there are many of which I am not. The desire of avoiding prolixity may be offered as a partial excuse.

The treatment of the complaint is naturally divided into that of the ulcerated condyloma, and that of the secondary symptoms. A course of mercury is generally necessary for the former, almost always required for the latter. Prior to commencing it for either, the general health must be properly attended to. If the tongue is foul, or the bowels out of order, aperients must be given, indeed these may always be prescribed with advantage at the onset. If pyrexia is present salines should be exhibited. As soon as the secretions are

* There is no good account of the diseases of the tongue; yet the subject is one of great practical interest. I possess the notes of some curious cases. Probably Mr. Brodie could communicate much valuable information on the subject.

improved, and the general functions brought into good order, a mild course of mercury may be commenced. The blue-pill or the mercurial ointment are the preferable forms; five grains of the former twice daily, or inunction of half a drachm to a drachm of the latter, are the usual dose. Mercury should never be continued for any length of time without the combination of tonics. Of these sarsaparilla and good diet are the best.

The local applications and management are simple. If the parts are inflamed, tepid bathing and bread poultices may be employed. When this state is subdued, the black wash is the best application to sores; and, when these are healed, the oxymuriate lotion is useful.

To enter into further details would be tedious. Much of what was said with respect to the treatment of the simple condyloma is applicable to this. It would be out of place to dwell on the principles which should guide us in regulating a mercurial course. To these I shall advert very fully hereafter.

It remains for me to describe the third variety of condyloma. In this, the condylomatous deposites are not separate and distinct, but a mass of morbid structure is presented. The growth is chiefly seated in the cutis.

Its usual situations are the labia in females, and the perinæum, or vicinity of the anus in both sexes.

The growth is irregular—of variable size, but frequently extensive—fissured on the surface—sometimes, on the labia, possessed of little vascularity, and almost warty—generally, especially in the perinæum and round the anus, vascular and ulcerated, or secreting on the surface. The discharge, in the latter instances, is peculiarly offensive, and the part appears always in a slop. The varieties in form, which are chiefly displayed in the perinæum and around the anus, have given rise, amongst the older surgeons, to some curious terms. Thus, the names of *fici, crystæ, &c.* have been employed, from supposed resemblance borne to those objects by the condylomatous productions. This kind of condyloma is occasionally seen between the nates of infants, especially of such as are born of parents infected with venereal symptoms.

This form of condyloma may or may not be venereal symptoms. In some cases filth appears to give rise to it; in others it is clearly the consequence of discharge. It is occasionally followed by some of the secondary symptoms which have been described. In a female, who suffered to a great extent from this form of condyloma, a similar growth was developed in the axilla. The patient was cured of both. I have heard of other instances of this description of condyloma in the axilla; the above was the only one which I have seen.

After what has been said upon the other forms of condyloma, it would be repetition to dwell on the treatment of this. The same principles must regulate the management of all. As this form is frequently not followed by secondary symptoms, it is better to try simple remedies first. If the condyloma does not yield, or if secondary symptoms supervene, the propriety of a mercurial course will be more evident. Escharotics are more adapted to this than to the other varieties of condyloma. The arsenical lotion is very powerful and rather dangerous. If the oxymuriate lotion fails, perhaps the old and familiar combination of the powdered savine with the ærugo æris will prove as good an application as any. Excision is sometimes adapted to the whole, more commonly to part of the condylomatous production.

A candid review of the preceding observations will, I hope, convince the reflecting surgeon, that the subject of condyloma is deserving of more attention than it seems to have hitherto received. The prevalence, and occasional severity of the affection, its varieties its secondary symptoms, render it an object of much practical interest. Whilst it usually yields without much difficulty to a well-adapted system of treatment, it obstinately resists the random shots and desultory attacks of inexperienced or ill-formed practitioners.

It will probably have occurred to the minds of some of the readers of this paper, that a striking singularity attending condyloma is its origin in gonorrhœal discharge, and its power of giving rise to secondary symptoms. We not unfrequently hear surgeons talk of gonorrhœal sores and gonorrhœal secondary symptoms. So far as my observation has extended, their ideas have been as vague as their language is indefinite. Unless condylomatous ulcerations be considered gonorrhœal, I have seen none, nor have I ever witnessed a fair example of secondary symptoms following uncomplicated gonorrhœa. Making no pretence to theoretic speculations, I merely offer the results of observation. If that observation be correct, condyloma would appear to form some intermediate state between gonorrhœa and syphilis.

The nature of the subject and the length of these remarks, preclude the necessity for the introduction of particular cases. I shall therefore proceed to offer a few observations on the subject of venereal warts.

Venereal Warts.

They are frequent in both sexes. In the female, they occur on the outside and inside of the labia—at the orifice of the vagina—in the perinæum, and on the neighbouring portions of the thighs—in the groins and round the anus. In the male, they grow from the inner prepuce and the glans.

The localities where they are found, and the circumstances under which they originate, prove that heat and moisture, and the lodgement of irritating secretions, natural or morbid, are the elements that favour their production. Some females exhibit a much greater disposition to the generation of warts than others. Those whose skin is coarse, and whose perspiration is more than usually offensive, appear to be more prone to these formations than individuals of a different conformation. Males whose prepuce is naturally long, are well known to be more subject to them than those whose glans is commonly uncovered.

Any thing which excites increased vascular action in the prepuce, on the glans, or at the outskirts of the vagina, appears to be capable of giving rise to warts. Thus, a patient who has recently had a sore upon the inner prepuce, very frequently discovers that warts have sprung up in the cicatrix. The same disposition is observed in the female. The majority of common prostitutes have warty growths at the orifice of the vagina.

It is probably for the same reason, that persons affected with chronic inflammation of the inner prepuce, a complaint on which I shall presently make some remarks, are also disposed to suffer from warts.

It is evident that warts are frequently independent of a venereal origin. But still more frequently they arise from gonorrhœal discharge.

Venereal warts display several varieties, but perhaps the leading division is into those which are highly vascular, and those which are comparatively little so.

The vascular wart attains a larger growth than the non-vascular variety. It usually springs, in the male, from the angle of the inner prepuce, and the glans. In the female, it is chiefly seen at the orifice of the vagina, the inferior commissure, the perinæum, and the margin of the anus.

It is soft, of a pinkish-red colour, lobulated, and composed of numerous productions, usually attached by a pedicle smaller than the superjacent growth, but sometimes arising by a broad base. When wounded, it bleeds freely. It is highly sensitive. It displays a remarkable facility of reproduction.

This form of wart not unfrequently occasions very troublesome consequences. When confined within the prepuce, it attains a large size, and gives rise to phymosis. The lodgement of the secretions then accelerates its growth, and aggravates the mischief. Inflammation and ulceration of portions of the wart occur—a sanious discharge is partly locked up, and partly escapes, from the prœputial orifice—the inner prepuce is irritated, excoriated, in-

flamed, and ulcerated also—the ulcerated surface of the inner prepuce sometimes contracts adhesions to portions of the wart—sometimes the ulceration extends through both layers of the prepuce, and the wart or the glans protrudes through the opening, and sometimes a partial combination of all these circumstances is observed. This is not an ideal picture, for some of the most ill-favoured specimens of venereal diseases of the penis which I have witnessed, have been such cases as I have just described. On dividing the prepuce, or removing it, the glans resembles a cauliflower, in all but its purity of tint.

In the female, the vascular wart on the perinæum, or around the anus, is rather disposed in layers vertical to the surface than in rounded masses. This is the consequence of the lateral compression exerted by the nates and the thighs.

The non-vascular wart is not actually devoid of vascular organization, but the latter is much lower in degree in this than in the variety I have just described. It usually springs up in insulated growths. They are small, firm, numerous, and feel like granules. They seldom attain a much larger size than peas, but sometimes they run together, and form small, rough, brownish masses, with a pedicle much narrower than that of the vascular wart. This species is much less sensitive than the other. Patients may be seen to rub and pick off these warts without much apparent uneasiness.

The treatment of warts would appear to have exhausted the stock of escharotics in the materia medica. Astringents, acids, caustics, ligature, the knife, have been freely recommended and liberally used. I cannot pretend to add to the list of applications, but shall merely attempt to promote discrimination in their management.

There can be no question that frequent ablution will greatly tend to prevent the formation of venereal warts. In females with acute or chronic gonorrhœa, this is absolutely necessary. In males, whose prepuce is naturally long, and whose secretions from the glands behind the corona, are apt to become irritating, the prepuce should be regularly retracted night and morning, and the glans and inner prepuce should be washed with a lotion of the acetate of lead. Lint dipped in this should be then applied, and retained, so as to separate the prepuce from the glans. By these means, warts will be generally prevented from appearing, or, if slight, will be removed.

But when warts have attained duration or magnitude, their cure is frequently a matter of difficulty. The following hints may perhaps be serviceable, in assisting the practitioner in his choice of remedies.

The vascular wart is more influenced by astringents than the other less organized varieties. Unless it is extensive, it frequently yields to the application of the undiluted liquor plumbi, which should be employed twice daily. Lint dipped in the same, or in a more dilute solution, should be constantly applied. If this is unsuccessful, I believe that a strong acid is the best application; it is certainly severe. If the vascular wart, however, is extensive, and the patient will submit to the treatment, the best and most expeditious method, is to conjoin the employment of the strong liquor plumbi with excision. The warts on the exterior of the mass should be excised with a pair of curved scissors, and the cut surface left should be touched with a piece of lunar caustic. By the combination of these means, a large mass of wart is very speedily got rid of.

The best mode of treating the non-vascular wart is by excision. Whatever substitute is tried, the surgeon most commonly resorts to this at last. The ligature is quite as painful, or more so, and certainly much less efficient. Whether excision or the ligature be adopted, the surface that is exposed should be touched with caustic. With this precaution, the wart very often re-appears —without it, we may generally count on its doing so.

When discharges co-exist with warts, proper means for arresting them should always be employed. Improvement of the secretions is desirable also—and

for this, aperients, with the warm bath, and regulated diet are of service.

When warts of the glans, or of the inner prepuce at its angle, have occasioned phymosis, or those other consequences to which I have fully alluded, it becomes indispensable to divide the prepuce, or even to remove it. Indeed, if a patient with a prepuce naturally long, evinces a disposition to warts, which is not effectually prevented by cleanliness and the constant application of lint, I should strongly recommend the operation of division of the prepuce, or even that for the removal of some portion of it. I have performed both several times on this account, and the warts have subsequently ceased to appear. When adhesions have occurred between the inner prepuce and the warts, and ulcerated openings have formed in various parts of the prepuce, removal of a portion, at the least of the latter becomes indispensably necessary! The mode of operation in the individual case must depend on the adroitness and judgment of the surgeon. It is impossible to lay down precise directions. In one case, in which the glans protruded at a lateral opening, an inch or an inch and a half from the free end of the prepuce, I introduced a director into the aperture, and passed it across till its point pushed out the prepuce on the opposite side. A sharp pointed bistoury was then run along the groove of the director, and the operation of removing the prepuce was completed by cutting off, at one stroke of the bistoury, the lower flap. Circumcision was thus very speedily effected without division of the prepuce from before backwards.

Perhaps, while on this subject, a few words may be permitted on the operation of division of the prepuce for phymosis, natural or morbid. It has been proposed by M. Cloquet to divide the prepuce at the side of the frænum, in order to obviate deformity. This method answers well enough in slight cases, where the quantity of prepuce to be divided is small. But in those in which the prepuce is long, or the constriction tight, this mode of operation is generally ineffectual. The reason is obvious to those who consider the anatomical relations of the part. The antero-posterior diameter of the glans is much smaller at the frænum, than on its dorsal aspect. The prepuce is consequently sooner reflected, and less is divided in the operation. If the portion behind the frænal reflexion is narrow, so much of the constriction remains of course.

When the operation is resorted to for warts, or for chronic inflammation of the inner prepuce, the plan of Cloquet is quite inadmissible. For the object in such cases is to expose the inner prepuce on the dorsum, and the method in question is incapable of doing so. The operation in short is seldom a good one, although it has been very highly recommended. The prepuce in cases of wart or of chronic inflammation should be divided at its middle on the dorsum.

I have probably said sufficient on the subject of warts. I shall conclude this paper with a few observations on an affection of the inner prepuce which frequently occurs in those disposed to warts, which, however, is more often independent of them, which deserves consideration because it is common and because it is productive of much inconvenience, and which I believe has never been described.

Chronic Inflammation of the Inner Prepuce.

This occurs in persons whose prepuce naturally covers the glans. In some this almost amounts to phymosis, the prepuce scarcely admitting of retraction. In the majority of instances the prepuce either covers the glans very loosely, or only in a partial degree.

The inner prepuce in this affection is extremely red. The cutis is apparently thickened, or, rather, there is thickening in the cellular tissue external to the cutis. This thickening is made manifest by pinching the inner prepuce between the finger and the thumb.

There is a great disposition to excoriation, in fact, the patient is seldom free from superficial ulcerations of some description. When these are healed

by appropriate treatment, the slightest indiscretion or neglect occasions their return. Venereal intercourse is frequently attended with severe pain; it almost always occasions abrasions, and frequently sores, which assume the elevated character, and commonly require mercury for their cure. Patients complain bitterly of the manner in which they suffer from connexion. One gentleman was separated from his wife for three years, prior to his placing himself under my care. He could seldom or never be connected with her, without the supervention of abrasions or of sores.

Not unfrequently warts arise from the inner prepuce in this state of chronic inflammation.

Irritation and enlargement of the inguinal absorbent glands appear as an occasional attendant upon it.

I presume that some natural irritability of the skin is the principal cause of this affection. Perhaps inattention to cleanliness many in some cases tend to its production. I have heard patients attribute its origin to gonorrhœa. This is not an improbable conjecture, for in that complaint it is not unfrequent for a limited portion of the inner prepuce to become red, irritable, and even thickened. With care and attention this state may be removed, but it is reasonable to suppose, that without attention it may end in the condition of chronic inflammation.

To recapitulate. The chief characters of this affection are redness and thickening of the inner prepuce near the angle—tenderness of the part when touched, and, often, pain in it during coition—an extreme tendency to excoriations and to sores.

The treatment which readily occurs to the mind of the practical surgeon is ablution—the retention of lint between the foreskin and the glans—abstinence from all probable causes of irritation—and attention to the state of the secretions. But likely as it might seem, á priori, to succeed, this treatment is not in general successful. The part may become less irritable, the excoriations may be healed, but the slightest inattention or indiscretion is apt to render the complaint as bad as ever.

The only means with which I am acquainted, of effecting a cure of the affection, is division of the prepuce, or, which is even better, circumcision. I have performed both operations successfully on several occasions. If division is selected, it should be made upon the dorsum of the prepuce through the centre of the part that is the seat of the disease. If circumcision is preferred, and it seems to me the best, the surgeon should take care that he does not leave too much of the inner prepuce. The glans in either case should be perfectly denuded, and the inner prepuce at the angle should be bare.

For some time after the cicatrization of the wound, lint dipped in the solution of the acetate of lead should be worn around the penis behind the glans. The patient must be chary of venereal indulgences.

I must now bring this paper to a close. It has extended to some length, but I trust it will not seem to be composed of mere verbiage, or swollen by useless repetitions. I think it must appear, what it really is, the expression of what I have seen, rather than of what I may have read. Much as has been said on venereal diseases, there is room for the publication of the results of careful observation. Many who have written, have betrayed an imperfect acquaintance with the malady of which they treat—others have evinced a disposition to theorize, and exhibited the liveliness of their imagination, in lieu of the patience of their study, and the soundness of their judgment.

LONDON HOSPITAL.

DISLOCATION OF THE HEAD OF THE FEMUR INTO THE FORAMEN OVALE.*

Two cases of this description are related in the Lancet. As the mode of reduction which ultimately proved suc-

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* Lancet, April 5th, 1834.

successful was not the one which is most familiar, and most commonly applied, although it is similar in principle, it deserves to be recorded here.

Case. A man, æt. 35, was admitted into the hospital under the care of Mr. Andrews, having been thrown from a cart a short time previously;—he was not aware of the manner in which he fell.

One leg was widely separated from the other, and any attempt to bring them together caused considerable pain. The foot was in a natural position, without inclining to either side, and resting upon the heel. There was decided flattening of the hip, and increase in the length of limb to nearly two inches. "On being removed to the operating theatre, attempts at reduction were made for more than an hour and a half, without success; when the operators were obliged to desist, in consequence of one of the hooks of the pulleys becoming straightened. Great difficulty was experienced in fixing the pelvis; it was therefore determined to defer all further attempts at reduction until two o'clock on the following day, when the patient was again brought into the theatre, and placed on the table. The pelvis was secured by round towels; and attempts at reduction were repeated, and persisted in for a considerable time, without success. At length the head of the bone was found to be removed from the position it had taken up, when the other hook broke, and the head of the bone returned to the place from which it had just been dislodged. The reduction was ultimately effected by placing the patient in a siting posture, with a post between the thighs, when extension was kept up for a considerable time. The rope was then cut, and the limb at the same time being suddenly forced across its fellow, the head of the bone slipped into the acetabulum. The patient was in the theatre upwards of one hour and three quarters, the whole of which time was occupied in attempting to effect the reduction of the dislocation."

In the second case, the mode in which the accident occurred was highly characteristic. The patient was stooping, with the thighs widely separated, tying a rope round a sack of malt, which was to be lifted into the upper floor of a warehouse, when another sack was already raised to the upper part of the warehouse slipped from its rope, and fell across the lower part of the man's back.

The symptoms of the dislocation were obvious enough. Reduction was readily effected. The patient was placed in a sitting position with a post between the thighs. A round towel was then passed around the thigh, to which the pulleys were in the act of being affixed, when, on drawing the towel tight, the head of the bone suddenly slipped into its socket.

LONDON DISPENSARY.

ASCITES CURED AFTER PARACENTESIS.

In connexion with the case related by our friend Dr. Dickson, the following one, published by Mr. Robinson, in the London Medical Gazette, will prove interesting to our readers.

"Mary M'Key, æt. 26, transferred from the physician to me, August 27th, 1833. Appears of good constitution; the mother of three children. Labours short and natural. Was put to bed of her last child, 29th June. After delivery her abdomen was as large as before; her feet and ankles were rather swelled before delivery, and afterwards remained so. About the third day after the birth of the child she got up, and the abdomen increased in size. She was churched at the three weeks end, after which the abdomen still further increased in size, and she had some dyspnœa and cough. Elaterium and supertartate of potash and gamboge were given; and on the 22d instant she rubbed in the strong mercurial ointment. Her mouth is slightly sore; the abdomen though considerably swelled, (forty-eight inches in circumference,) is not very tense; there is a decided fluctuation on percussion. She has still a slight cough, but her breathing is free; respiratory murmur audible throughout the chest; slight rhoncus crepitans

posteriorly and inferiorly, particularly on the right side. No fever; sleeps well. Pulse small, quick, and feeble; tongue clean and moist; bowels regular; urine copious; skin dry; faints at times on the least motion. Repetatur ung. nocte maneque; Ol. Ricini, ʒss.; p. v. 2; Pulv. Digitalis, gr. 1-6th; Quin. Sulph. g. i. 3 die. The abdomen to be bandaged.

Sept. 3d. General health exceedingly good. Finds great support from the bandage; feels stronger; mouth sore; abdomen has gradually diminished, and is now reduced to 9½ inches; legs rather less swollen; milk deficient from the first; child much purged and greatly emaciated. Rep. ung. o. n. et Pulv. and bandage. A wet nurse.

7th. Child wonderfully plumped out since the change, and no longer purged. Mother steadily improving; legs have not swelled since last report, though she has set up for an hour or two at a time: abdomen still decreasing, measuring four inches and a half less than on the 3d instant: a troublesome cough the last few days, relieved by linctus; mouth more sore. Some ptyalism. Repetantur omnia.

16th. Up, and goes out; ointment omitted; mouth still sore; abdomen two inches less; faint at times. Omitt. medicamenta.

Oct. 1st. Swelling of the abdomen rather increased, it is feared, but not proved by measurement; fluctuation more distinct; is going into the country. Repetatur unguentum nocte maneque.

Nov. 12th. Returned from country a few days; abdomen much more swelled and tense, 44 inches in circumference; umbilicus has started; the fluid passes into it, forming a fluctuating tumor, easily emptied; no œdema of legs; much dyspnœa; slight rhoncus crepitans throughout posterior part of both lungs; general health good; bowels opened yesterday by oil; paracentesis abdominis ten quarts of green, clear fluid removed; no flakes of coagulable lymph; operation well borne; no visceral disease detected, though there seemed slight enlargement and hardening in the right lobe of the liver.

14th. Sitting up; easy; slept well; breathes much freer; cough trifling; mouth sore; several motions, with some griping.

Pil. hydr. gr. iij. Pil. sap. c. Opio, gr. ij. o. n. Inf. gent. co. ʒiss. Potass. acet. ϑ ter die.

Jan. 7th, 1833. Abdomen within an inch as large as when she was tapped; has not menstruated since her confinement; breathing unoppressed; legs do not swell; general health remarkably good.

Jan. 13th, 1834. She called at the Dispensary to-day to inform me that she went into the country soon after last report; that the abdomen gradually decreased, and that she believed the fluid had entirely disappeared for the last two months. On a careful examination, there is not the least trace of fluid in the abdomen, nor any visceral enlargement; the abdominal parietes are flaccid; she finds great support from the bandage; goes about her work well; looks and feels in perfect health.

Remarks. There are a few points of interest in this case to which I will briefly allude. 1st. I would ask to what was the dropsy attributable?—to pressure upon the large veins during utero-gestation; to disease of the liver; or to increased action in the vessels of the peritoneum?

That it is not entirely owing to pressure during pregnancy, is, I think, to be inferred from its return after paracentesis abdominis subsequent to delivery.

That it was not caused by hepatic disease I am also inclined to infer, from the patient's perfect restoration to health; from the few symptoms of hepatic derangement under which she laboured; and from enlargement or induration of the liver being suspected rather than proved.

I am therefore of opinion, that the dropsy was in this case owing to increased action in the vessels of the peritoneum, to which I am more especially led by the rapid return of the fluid after its removal—by its spontaneous disappearance subsequently—and by the circumstances which, in my mind,

militate against the dropsy being produced by the before-mentioned causes.

I do not think the increased action amounted to actual inflammation, because there were no symptoms of peritonitis, and the fluid when withdrawn was quite transparent, and free from flakes of coagulable lymph—a circumstance by which I have frequently distinguished ascites with inflammation, from ascites the result of chronic visceral enlargement, or induration, a distinction sometimes difficult, but always important.

The good effects of mercury in diminishing dropsical effusions were conspicuous in this case, which is further remarkable from the palliative means proving radical, a circumstance rare in the treatment of hydrocele, and still more unfrequent in that of ascites."

DUMFRIES INFIRMARY.

CASE OF EMPYEMA, WITH OPERATION. By J. GRIEVE, M.D.

The following case will shew that exploration of the thorax, by auscultation and percussion, is well understood in Dumfries.

Case. "Adam Lightbody, æt. 20, admitted into the Dumfries and Galloway Royal Infirmary, on the 25th of August, 1833—labours under constant dyspnœa, increased by motion and exertion of the slightest kind; difficult decumbiture on the right side; sense of fullness and oppression in the chest and abdomen. On percussion, the sound is clear over the superior portion of the right side of chest, and also over its anterior and posterior aspect; but over every other part of the chest, and particularly the left side, it is remarkably dull. Respiratory murmur inaudible, except in the upper part of right side of chest, where it is distinctly puerile. Pulsation of heart weak, and heard only on the right side of sternum. There is a decided difference in the size and figure of the two sides of the chest; the left being much enlarged, and measuring two inches more than the right, and considerably distorted from the uniform dilatation of the ribs, and increased width of the intercostal spaces. Integuments of left side œdematous, presenting a clear shining appearance. Abdomen enlarged and tumid, with distinct fluctuation. Right hypochondriac and epigastric regions sound dull on percussion, and feel hard and unyielding, evidently from enlarged liver. Lower extremities are œdematous. Urine small in quantity, and high coloured. Bowels slow. Respirations 42 in the minute. Pulse 116—small and weak. He is harassed with a short cough, attended with scanty expectoration; no fluctuation is perceptible on succussion. Was exposed to cold nine months ago, and since that time his ailments have been gradually on the increase.

℞. *Hyd. submur.* gr. iij. *Pulv. jalapæ comp.* ʒij. *M. habeat statim.*

August 26th. Bowels moved freely from medicine; in other respects much as yesterday.

℞. *Hyd. submur.* gr. ss. *Pulv. scillæ, Pulv. digitalis,* āā. gr. j. *ter die sumend.*

Aug. 27th. Passed a restless night, his sleep being interrupted by a sense of suffocation. Pulse 112. Respirations 30.

Aug. 28th. Dyspnœa much increased; abdomen more tumid and tympanitic; urine scanty, and rendered with difficulty; pulse 110; respirations 36.

℞. *Enema terebinth. habeat statim.*

℞. *Acidi hydrocyan.* gtt. iv. *h. s. sumend.—Cont. pilula, ut antea.*

Aug. 29th. One stool after enema, with discharge of flatus, which gave him temporary relief. Slept rather better. Left side of the body more œdematous—dyspnœa more urgent.

Rept. Enema et Haust. anod. ut heri.

Aug. 30th. Feeling of suffocation intense. Pulse 118, and feeble—in every respect is worse.

The symptoms were now so urgent as to preclude any reasonable prospect of his being relieved, otherwise than by paracentesis, which, after consulting with our colleagues, was determined on, and performed accordingly, in the usual manner. Upwards of fourteen pints of purulent fluid, of a yellowish

colour, and most offensive odour, were drawn off; and during the issue of which, the respiration gradually became more free and unembarrassed, and he expressed himself much relieved. The fear that collapse might occur, deterred us from drawing off any more at that time. A tent was introduced into the wound, and a compress and bandage applied around the chest: an anodyne draught was administered.

We had now to learn, what he had hitherto unaccountably concealed, that he had been unable to follow his trade (a stocking-maker) for the last four months, in consequence of frequent pains and stitches in both sides of chest, but particularly in the left, for which he was largely bled, and had two blisters applied with relief:—and that two months ago, he expectorated, during two successive days, several mouthsful of matter, similar in appearance to that drawn off by the operation;—that in rising, or stirring in bed, he heard very distinctly a splashing noise in his chest.

Six o'clock, p. m. Continues tolerably easy; but not so much so as shortly after the operation. Respirations 32. Pulse 116; very irregular, and sometimes scarcely perceptible at the wrist. Faint respiratory murmur is now heard over the third rib or left side.

℞. *Liq. Morphiæ*, gtt. xv. *statim. sumend.*

Aug. 31st. Died at four o'clock this morning.

Autopsy. On removing the sternum, we were surprised to find the cavity of the left pleura to contain very nearly *eight pints* of pus, making, with the *fourteen pints* previously drawn off, *the extraordinary quantity of twenty-two English pints?* The pleura was covered with an inorganic layer, of a white, curd-like substance, which could be detached with the handle of the scalpel, the membrane underneath presenting a grayish appearance, and apparently a little thickened. The lung situated by the side of the spinal column, under the cartilage of the third rib, was compressed and flattened, and reduced to the size of the clenched hand. When cut into it was dense and fleshy, presenting the carnified appearance described by some authors. At its lower margin was found a large tubercular abscess: a smaller one was also found in its upper portion. The heart was thrust from its natural situation completely over to the right of the sternum, and was covered with a thin layer of fibrine, which, in the left side, adhered firmly to the pericardium. The cavities of the heart were filled with coagula of fibrine, which was so firm and tenacious as to be drawn out with difficulty. The right auricle was nearly four times the size of the left. A considerable quantity of serum was effused into the right side of the chest—the inferior portion of the right lung had a coating of false membrane adhering at several points to the pleura costalis: the upper portion of the lung was infiltrated with bloody serum, and in several parts much indurated. In the left side, the diaphragm, in consequence of the incumbent fluid, was thrust down as far as the crista ilei, displacing the spleen and left kidney—the latter organ being placed by the sides of the inferior lumbar vertebræ! Both the kidneys were enlarged. Serum to the amount of three pints was effused into the abdomen. The liver was much enlarged; gall-bladder nearly empty; intestines naturally vascular.

Remarks. Considering the debilitated state of the patient—the extent of the effusion, and its long standing—*paracentesis* was perhaps a measure of questionable expediency; but the failure of all other means, and the rapidly increasing dyspnœa, rendered it our last and only resource. Had we possessed a more perfect knowledge of the history of this young man's case, and been aware of the tuberculated state of the lung, and of its complication with pneumo-thorax, as evidenced by his expectorating, some months before his admission, a quantity of matter, followed by relief of all the symptoms; and his being sensible of a splashing noise on any exertion or change of posture—we would have hesitated to sanction the operation under such inauspicious circumstances. There can be little doubt that, in this instance, in place of

retarding, it rather accelerated the fatal event."*

Whether the operation accelerated the fatal event or not, it was perfectly justifiable. Were we in the same circumstances as the unfortunate patient, we should have implored the operation, even for the momentary relief it afforded. Life was not worth having under such sufferings—and the acceleration of death was a blessing. By the way, we do not see quite clearly that pneumothorax existed in the above case. Dr. G. does not state that air was found in the left pleural cavity, and neither the expectoration of purulent matter, nor the splashing noise which the patient heard, afforded positive proofs of pneumothorax.

GUY'S HOSPITAL.

FRACTURES OF THE RIBS AND STERNUM.

Mr. Bransby Cooper, in the volume of Surgical Essays which he has lately published, devotes one hundred and twenty pages to the consideration of various fractures. It might seem to require some boldness to embark on a venture of this sort, so soon after the publication of a work like that of our author's illustrious uncle. But any surprise must be diminished by the reflection that the pages of Mr. Cooper are chiefly occupied with clinical details and facts. The generalizations are neither extensive nor numerous. We have selected fractures of the sternum and ribs for notice upon this occasion.

Mr. Cooper observes that, in cases of fracture of the bony parietes of the thorax, when the serous cavity is opened, there is great risk of pleuritis. When the viscera are wounded the source of danger is threefold; first, from the effusion of air producing emphysema; secondly, from the great tendency to the effusion of blood; and thirdly, from the consequent disturbance to the important function of respiration. But Mr. Cooper has omitted to notice two other serious consequences which may arise from wounds of the lungs—empyema and pneumo-thorax. We have witnessed instances of both.

We perceive no remark on the subject of simple and compound fracture of the ribs which need detain us. When the pleura is wounded in cases of fracture of the rib, the lung is generally implicated also. When this has occurred the treatment will depend on the quantity of blood which flows, and on the amount of difficulty of respiration.

"If the flow of blood be so great, and there be any difficulty in its escape from the chest, so as to lead to the dread of collapse of the lung from its pressure, it is then, not only wrong to close the external wound, but it should be enlarged, so as to admit of the free exit of the blood; which may be further assisted by placing the patient in the best position to facilitate its flow from the chest. Besides this, a considerable quantity of blood must be drawn from the arm, by a large opening, even to syncope, as the only means to be relied upon to check the continuation of bleeding from a wounded lung. Perfect rest, cool temperature, acidulated drinks, and every means on the one hand of diminishing the action of the heart, and on the other of maintaining the secretions, are to be employed; and as soon as there is the slightest appearance of reaction, indicated by pain, difficulty of breathing, and perhaps by some return of bleeding from the wound, the lancet must again be called in aid, as the only hope, dangerous as its use may appear, to save your patient, and thus allowing time for the healing of the wounded lung."

Mr. Cooper seems to deprecate much searching for extraneous substances in the chest, under any circumstances. If they are so near the surface as to admit of ready abstraction they should be withdrawn.

Mr. Cooper observes, with respect to emphysema, that the treatment consists in making free incisions through the skin to allow the air to escape; and in applying bandages through the whole extent of the distended parts, as well as over the ribs, to prevent perfect respiration. If compresses are employed,

* Liverpool Medical Journal, No. I.

they should not be applied opposite to the precise spot where the wound in the lung has been inflicted, for fear of forcing a fractured rib still deeper into the lung.

We think that our younger readers should receive these opinions of Mr. Cooper with some allowance. They should be told that emphysema, after injured lung, is not always frightful, nor always serious—that scarifications are by no means required in a number of cases—and that compresses are sometimes dangerous. We have seen four or five instances of emphysema after rupture of the lung, which did extremely well without any special treatment. We also saw a case a year or two ago in which emphysema succeeded a fracture of several ribs. It was attempted to apply a bandage on the chest, when the patient became affected with dyspnœa; his cheeks were bloated and purple; and he quickly died. We think that these remarks are necessary, in connexion with the description and recommendations of Mr. Cooper.

We shall now select some cases, in order to display the commencement and the end of all medical reasoning.

CASE 1.—*Fracture of the Clavicle and Ribs—Emphysema—Death.*

Susanna Webster, æt. 76, of delicate appearance, was admitted into Guy's Hospital Dec. 24th, 1832, a carriage having passed over her chest.

On examination, there was found a very comminuted fracture of the left clavicle, and fracture of several of the ribs on the same side, indicating laceration of the lung, by the appearance of an extensive emphysematous swelling. By placing the ear upon the left side of the chest, blood and air could be distinctly heard rushing from the lung. There was also a severe wound and contusion of the scalp, but no fracture of the bones of the skull could be detected. The respiration was very laborious; the pulse quick, small, and feeble; the extremities and surface of the body cold; the pupils perfectly sensible. A flannel was gently bound over the ribs and clavicle, and the wound in the head dressed; she was ordered the julep. ammon. every four hours, and bottles of hot water to the feet. Her state of collapse was so great, that no attempts were made to relieve the emphysema by incisions through the skin.

At 10, p.m. the pulse continued very quick and small—respiration irregular, frequent, and laborious—emphysema extending—the countenance anxious. Five drops of laudanum had been added, at half-past six, p. m. to each dose of the ammonia draught. Next morning it was necessary to draw off the urine by the catheter. At noon of this day (25th), respiration seemed to have ceased in the lower part of the left lung, and at 8, p. m. it could only be distinguished in its superior part. She sank progressively, and expired at 6, a.m. of the 26th.

Dissection. Considerable ecchymosis was found over the centre of the sternum, and on the ribs on the left side. The sternum was fractured at the upper part of its middle bone; the clavicle was also fractured in its centre, and much comminuted. The nine upper ribs were broken at their bodies; the fifth piercing the pleura, and lacerating the lung in two or three places; the sixth and seventh ribs were broken at their necks, and had pierced the pleura, which was found excessively inflamed, and within its cavity six ounces of blood which had been extravasated from the ruptured lung; the abdominal viscera were perfectly sound.

Mr. Cooper remarks, what must be evident to practical surgeons, that active measures were quite out of the question in a case like this. The age of the patient and the symptoms equally forbad them.

The next case is one of a less serious character. The patient, a coal-porter, aged 56, fell over a coal-box while in a state of intoxication. He was admitted, complaining of great difficulty and pain in respiration, which was short and quick; his face was livid; his pulse quick and feeble, and his extremities were cold. On examination of his chest, three ribs were found fractured on the left side, between the eight and eleventh. He was immediately put to bed; warm bottles were applied to his

feet, and warm tea given him to drink. In about two hours reaction came on, a flannel bandage was then tightly applied round the chest, and as he had entirely recovered from his previous state of depression, complaining also of pain in the seat of fracture, he was bled to the amount of thirty ounces. Purgative medicine, the antiphlogistic regimen, and a cough linctus, were sufficient to effect this patient's cure.

Mr. Cooper insists on the necessity of waiting for reaction before active means are employed. Nothing certainly can be more ridiculous than bleeding a man because he is knocked down or run over, without stopping to consider his probable injury, or the actual state in which he is. But we fear that too many are inclined to run into the opposite extreme, and to exhibit cordials and restoratives in order to induce reaction. They blow the fire they must soon be at considerable trouble to extinguish. It is impossible to lay down a rule so general as at once to comprise the various particulars and apply to each. We would say, avoid endeavouring to induce reaction in cases of severe injury, unless there is decided danger from the mere collapse. When this is the case the injury must in general be so grave, that the result is much the same whatever may be done, but certain we are, that we have seen much mischief in cases of injury of the chest and abdomen, from the over-anxious and officious endeavour to procure reaction. Quiet and moderate warmth are amply sufficient in the great majority of instances.

Mr. Cooper relates an interesting case of laceration of the lung.

Case. W. M., æt. 18, a sailor, was admitted into Guy's Hospital, Oct. 19th, 1831, having fallen from the mast-head of a vessel on a belaying pin attached to its side. The peg had entered the chest just above the clavicle, and, having penetrated upwards of seven inches, had suddenly broken off. Mr. Randall, of Rotherhithe, extracted the peg, which required the application of great force, and was followed by considerable hæmorrhage. He was then taken to the hospital.

On admission, he complained of great pain in his left shoulder, and an uneasy sensation in his abdomen. There was considerable tumefaction of the left side of the face and eye-lids, with ecchymosis. A large lacerated opening immediately above the clavicle, about four fingers in breadth, presented itself, through which the clavicle might be felt fractured into two or three portions, and the subclavian artery was perfectly laid bare, as it passed over the first rib. There was emphysema extending from the neck, down the side and back; the surface of the body and feet cold; the abdomen somewhat distended, and he had partial priapism. The pulse 140, small, and sharp; he was ordered to be kept perfectly quiet. The edges of the wound were brought together by straps of adhesive plaster, and a dossil of lint applied to absorb the oozing blood; he was ordered to take the julep ammon. with the hopes of producing reaction.

At 8, p. m., the pulse was 120, fuller. He complained of increased pain in the abdomen. He was bled to 18 ounces, and a quart of urine was drawn off by the catheter. After this he sank. Constant sickness came on, and at 5, p. m. of the 20th, he died.

Dissection. "The wound produced by the penetration of the peg, extended from immediately above the left clavicle into the axilla; the clavicle itself was fractured in two places, and the subclavian artery, or more anatomically speaking, the axillary, was found lacerated; a large opening was found passing from the axilla, into the chest between the third and fourth ribs, leading into the left lung: and a large piece of blue cloth was firmly fixed into the lung itself, forming a plug which probably prevented immediate death from hæmorrhage. This wound was found to extend to the diaphragm, which presented a very ecchymosed surface; the spleen was found lacerated on its inner and posterior surface. The stomach and intestines were filled with air."

During life pulsation had been felt in the radial artery at the left wrist.

It was found, upon close examination, that the subclavian divided into a radial and ulnar branch, immediately below the first rib. The ulnar branch only had been wounded.

We extract the following directions with respect to treatment laid down by Mr. Cooper.

"When fracture of the ribs is indicated by an acute pain in respiration, the treatment consists in passing a broad girth with a buckle and strap tightly around the chest, so as to keep the ribs stationary during respiration. The surgeon, however, should first examine whether the salient angle, produced by the fractured extremities of the ribs, be directed outwards, or inwards towards the lungs; if outwards, a compress of wetted linen should be applied over the part fractured, but if inwards, two compresses should be adjusted at a distance from the fractured part, and in such a situation as may tend to press the displaced portions outwards from the cavity. When the ribs are fractured on both sides of the chest and opposite to each other, a bandage ought never to be applied, as it would press the fractured ribs upon the lungs: in such cases, bleeding, and the strictest antiphlogistic regimen is to be trusted to."

Mr. Cooper relates a case of fracture of the sternum, or rather of separation of its first and second portions, which deserves commemoration.

Case. A man, aged 23, was admitted into Guy's Hospital with displacement of the upper end of the second piece of the sternum, which was driven by a blow behind the first piece. Immediately alter the accident he suffered from dyspnœa, and experienced considerable pain on drawing a full inspiration. Upon examination, the extent of injury was quite obvious, but no means which could be employed could bring forward the depressed portion of the bone; the object therefore was, by constitutional means, to prevent inflammatory action, and by the mechanical adaptation of a bandage rolled around the chest, as in fractures of the ribs, to prevent the motion of the displaced bone; bleeding, purging, and the strictest antiphlogistic regimen were adhered to; and upon the application of the bandage, a compress was placed upon the lower part of the sternum, so as to have a tendency to press the displaced portion forwards. These means immediately produced the desired effect, removing all difficulty of breathing; and in a few days after, while in the act of coughing, the depressed portion was forced into its natural place, and the man, from that moment, was convalescent.

We once saw a case of fracture of the sternum occasioned in a curious manner—by the patient's pitching on his head. The upper portion was displaced, we think backwards. The only means of remedying the malposition was by keeping the head well back, when the sterno-mastoid muscles pulled up the displaced portion of sternum to its place. The remedy, however, was productive of more inconvenience than the injury, and the malposition was permanent.

"It sometimes happens," says Mr. Cooper, "that inflammation extends into the anterior mediastinum, affecting the absorbent glands, or perhaps, the remains of the thymus gland itself, which may go into a suppurative state; producing dyspnœa from pressure upon the lungs,—disease of the sternum from its tendency to be evacuated externally, —and presenting a pulsating tumour from its contiguity with the heart.

Such a case occurred in the practice of Sir Astley Cooper, in the person of a medical student, who believed himself, and had been led to believe by other medical men, that he was the subject of aneurism; under which conviction he had made up his mind to make a voyage to Bourdeaux, there as he believed to die. Before he left London, however, he thought he would consult Sir Astley Cooper, who told him at once the nature of his complaint, evacuated the matter, which had made its way through the sternum, and removed, simultaneously, both the appearance of aneurism and the fears of the patient."

There are other portions of this volume to which we shall refer upon future occasions. Practical facts and observations will always be valuable.

TRALEE HOSPITAL.

PNEUMO-THORAX, FROM PERFORATION.

In the May number of our esteemed Dublin contemporary, Mr. Poole, assistant surgeon of the 32d Regiment, relates a case of the comparatively rare disease at the head of this article. The subject of it was a young soldier, of healthy appearance, admitted into the Tralee Hospital on the 27th of March, 1832. The chest was not well formed. He had had pneumonia two months previously, and was affected at the time of entry with violent cough, dyspnœa, viscid expectoration ; but without any loss of resonance, or other sign of disorder in the chest, except some mucous rattle in the lower left lobe of lung. The disorder was considered bronchitic, and treated with antimonials, light diet, and counter-irritation. He improved much, and was convalescent. On the 27th April, however, the lower portion of right side gave a dull sound on percussion, and the respiratory murmur was heard indistinctly, but without any aggravation of symptoms, till the beginning of May, when the cough again became troublesome, and the aspect generally unhealthy. On the 12th May, loud bronchial breathing was heard in the mammary region of the left lung, with bronchophony, but no ronchus, the resonance continuing. On the 21st, a considerable change took place, the patient having been attacked with pneumonia of the lower part of the left lung, which yielded to bleeding and antimony, but not without leaving hepatization.

"After the signs of this latter lesion had entirely disappeared, a mucous râle persisted through the whole of the posterior portions of the lung, the anterior part giving a clear sound on percussion, until the 1st July, when the metallic tinkle was distinctly heard, and a diagnosis of pneumo-thorax made, although the respiratory murmur and a deep gurgling could be distinguished in the portions of the lung, over which percussion elicited the clearest sound. There never existed any signs of an excavation, but the patient coughed up, on the 4th and 5th of the month, a large quantity of a sero-albuminous fluid, proving that a communication existed between the lung and the sac of the pleura. From this time he sank rapidly, and expired on the 6th of the month.

Autopsy twelve hours after death.— Considerable marasmus; left side of the chest, at the inferior portion, much bulged out, highly sonorous, in fact, tympanitic ; right side gave generally a dull sound on percussion; on cutting through the cartilages of the left ribs, a rush of inodorous gas took place from the pleural cavity. The lung was found condensed, and pressed up towards the spine and back part of the ribs, to which it was bound by strong adhesions. A small quantity of a yellow coloured serosity existed at the bottom of the cavity. The surface of the lung was covered with several loose layers of false membrane, of a lemon colour and tough consistence ; they were readily detached from the lung ; the lung was firm and corrugated, it was perforated by a considerable opening, which existed at the back part of the upper portion of the lower lobe, close to the adhesion with the costal pleura ; the finger could be passed by this opening into the substance of the lung, and it was found that a small quantity of purulent matter escaped by it when the lung was pressed. The parenchyma of this lobe was thickly infiltrated with tubercular matter in a crude state ; one or two points of suppuration were observed, but anteriorly there was no evacuation. On the back part of the lobe, however, corresponding with the situation of the fistulous opening, existed a considerable irregular cavity, which had through this discharged its contents into the pleural sac. The upper lobe of this lung was quite sound, and did not contain a single tubercle, but all its bronchial tubes were much dilated, their lining membrane highly vascular, without any apparent hypertrophy. The sac of the right lung contained some serosity, but the lung itself, with the exception of its lower lobe, which was thickly studded with crude tubercles, was sound and crepitous."

MEATH HOSPITAL.

SURGICAL REPORT OF CASES TREATED DURING THE PAST YEAR. By W. H. PORTER, Esq. &c.

The Dublin Surgeons, Mr. Crampton, Mr. Carmichael, Mr. Porter, and others, have done themselves much credit by the readiness they have evinced to communicate clinical facts to the profession. Yet we think we perceive some indisposition to exertion creeping over the energies of the Irish hospitallers.

Mr. Crampton's throat is dry, and the surgeon-general has not lately poured forth his clear and sonorous chirurgical strains. We shall quarrel with these gentlemen, if they now turn laggards. It must not be.

A criticism on a case of Mr. Carmichael's has been taken in ill part. We know not the exact phrenological explanation of a fact which we have noticed, but the fact itself is a good one notwithstanding—that, in our critical experience, we have never seen the man who thought that he was over-praised, nor him who did *not* think a criticism on himself ill-natured.

If there ever was a medical journal in which approbation has been liberally, handsomely, gratuitously given, it is this. None are more disposed than its conductors to take the will for the deed —none give the generous cheer more loudly nor more long. Yet the instant they attempt to criticise, be it ever so considerately, they are overwhelmed by complaints of unkindness and cruelty. The writer and his friends should, however, reflect, that the reviewer's *must* be the ungentle craft, and that his ink grows colourless, if it is not mixed with gall. Unless his pen, like—

> Ithuriel's spear,
> Still shows the cloven foot—the lengthen'd ear,

it is decried by the public for an useless stump, and its characters wear neither form nor impress. For ourselves, we can only say that it always gives us pain to utter even a just criticism, and we appeal to our readers for the general candour, manliness, and generosity of our remarks.

To return to Mr. Porter and the Meath Hospital. We cannot forbear from introducing his prefatory observations, displaying, as they do, the good sense of the writer, and offering some excellent hints to reporters and to authors.

"The general practice of all hospitals," says Mr. Porter, "must be nearly the same, and as the leading characters and treatment of the ordinary forms of disease are pretty accurately understood, very detailed reports are neither necessary nor instructive, unless when adduced for the purpose of establishing some important pathological fact, or introducing some improvement in practice. But in every establishment of this kind, particular cases will occasionally occur, not only novel in their nature, and therefore curious, but by reason of their infrequency, difficult and uncertain in their management. By the publication of such cases in an authentic form the hospital surgeon may confer the greatest benefit on his profession, for he enables the practitioner, of extensive opportunities, who has met with similar cases, to compare the observation and experience of others with his own, and thereby approach the truth; whilst to the younger practitioner, he furnishes a guide and assistance in the difficulties of his profession, which, though far from perfect, may nevertheless be valuable. In this spirit and with this view, I have selected the following cases, each possessing its own peculiar interest, and on which I forbear to offer comment or observation, wishing to render the details as short as shall be consistent with clearness; and knowing that the case, which to the practitioner at the bedside will appear rare, or difficult, uncertain, or important, may, to the reader in his closet, deprived of the numerous aids derived from personal inspection, seem to possess little more than ordinary interest, and unworthy of being obtruded on the profession."

It appears to us, that the object of hospital reports is not merely to publish extraordinary cases, or to chronicle remarkable improvements, though both are highly desirable and necessary. It must be remembered, that a large portion of the medical public is placed

beyond the reach of those opportunities for maintaining a high standard of professional knowledge, which so amply abound in large cities. The surgeon, in thinly-peopled districts, or in our colonies, has no access to hospitals—no medical society—neither leisure nor opportunity, nor perhaps inclination, for laborious reading. His chief source of information is a medical journal, and on this he must depend for keeping him near the level of his brethren in the towns. He does not require to be told of extraordinary cases, which may never fall under his personal observation; but he looks for details of the current practice, for records of those facts which occur in masses, and constitute the sum of useful practical experience.

We think that hospital reports, if systematically given, would afford more valuable information to the profession, and diffuse more widely a knowledge of the true principles of reasoning, than any other kind of publication. The reader would acquire that taste for facts, and that disrelish of all not simply deducible from them, which tend, more than any other mental exercise, to give a bold and independent bearing to the intellect, to encourage acuteness of the observation, and to confirm the soundness of the judgment. The hospital reporter should endeavour to present a faithful picture of the varied character of hospital experience. He should not select the striking cases only, for they are the minority in nature; but, on different occasions, he should attempt to present the different orders of facts which are really met with in the hospital wards. If, influenced by the modesty of Mr. Porter, all reporters were to refrain from noticing the common cases, the public would be feeding on unnatural and stimulating viands, which must corrode their taste, instead of affording it wholesome nutriment. It is as if every host should offer only brandy to his thirsty guest, because he might procure pure water elsewhere.

In accordance with this plan, Mr. Porter relates four cases, severally possessed of some peculiarities. They are these:—1, Aneurism occasioned by the sequestrum, in case of necrosis of the tibia—2, Functional derangement of the brain, the result of injury, cured by the operation of the trepan—3, Curious and interesting case of bronchotomy——4, Disease of the lymphatics of the left arm, demanding amputation at the shoulder-joint.

These cases we shall notice in regular succession.

CASE 1.—*Aneurism in a Case of Necrosis—Death from Mortification and Hæmorrhage.*

A man, æt. 29, of drunken habits, admitted January 2d, 1833.

His face was blanched and anxious. On uncovering the limb, a small livid fistulous opening was seen on the outside of the lower third of the right thigh, slowly discharging a thin, serous blood, on pressing which the finger seemed to sink into a deep cavity; pulsation was quite distinct, and bruit de soufflet audible for some distance round it, as if from aneurism: the femur, at its lower third, could be felt enlarged, and the popliteal space filled up, but the pulsation of the artery below it was distinctly perceptible. There was intense pain in the knee, and throughout the tumor—extreme exhaustion—pulse 150, small and thrilling.

The disease seemed to have begun fourteen or fifteen years previously, with violent pain in the knee and lower part of the thigh, which rapidly swelled to a great size. The tumefaction diminished under the use of blisters. About a year afterwards, a small swelling appeared four or five inches above the knee, which was opened, and gave exit to some purulent matter; a sinus remained there ever afterwards. In August, 1832, an alarming hæmorrhage occurred from the fistulous opening, and this returned on the night preceding his admission into the hospital. The patient supposed that he had lost several quarts of blood, and he fainted from exhaustion seven or eight times.

From all these circumstances it was conceived that the case was one of popiteal anuerism complicated with

diseased bone, the sac having probably burst into the cavity of an abscess in connexion with the bone.

A compress of lint was placed over the opening, and a bandage rolled from the foot over and above it. Lemon juice was given ad libitum.

Some bleeding occurred during the night, and next day he was seized with severe vomiting; pulse 150, full and hard. On the 4th there was intense pain in the thigh. The face was bleached, with a yellowish tinge, and extreme anxiety——thirst urgent——pulse 142. Amputation was obstinately refused by the patient. The vomiting continued——the debility increased——and on the 6th there was great swelling of the thigh, with gangrene on its posterior surface, nearly as high as the buttock. A constant though feeble hæmorrhage trickled from the limb. At 9, p. m. he died.

Dissection. "On opening the popliteal space it was found filled with thick grumous clots, extending up as high as the lower third of the femur, in contact anteriorly with the bone, and with something that appeared to be part of the sac, but whether of an aneurismal sac, or the cyst of a former abscess, could not be determined. An opening existed in the popliteal artery, a little below the spot where it enters the space. The thigh-bone was found diseased in its lower half, being considerably enlarged, its surface rough, and a large portion of the posterior or popliteal aspect destroyed, so as to permit the introduction of the fingers into a large cavity within; the edges of the bone on each side of this opening were thick and very full of rough sharp points; in the upper part of the excavation the sharp point of a sequestrium was discovered, moveable, and accurately corresponding to the aperture of the artery, which it evidently seemed to have occasioned. The knee-joint filled with a yellowish serum, unlike ordinary synovia; its capsular ligament thickened. The cellular tissue of the entire thigh filled with a reddish serum."

There is slender evidence and but slight probability of the above having been an instance of true aneurism, that is, of the artery having been dilated into a sac, prior to a laceration or wound of the latter. It is more consistent with the circumstances to suppose that the wound was of the artery itself, and that the blood became diffused into the cavity of the abscess or surrounding cellular structure.

CASE 2. *Fracture of the Os Femoris, followed by Symptoms of Idiotcy and Paralysis—Recovery after the Operation of Trephining.*

Ed. Hughes, æt. 35, a healthy countryman, admitted June 26th, 1833.

On the 8th of the previous May, he was knocked down by a blow of a large stone nearly in the centre of the forehead, which produced a depressing fracture of the frontal bone. He was not rendered senseless by the blow, nor for sometime afterwards was there any perceptible consequence, as during the six subsequent weeks he was able to work, and had his intellects perfect and natural. His friends then observed him to become drowsy, listless, and incoherent; when undisturbed he was quite idiotic, but when roused he appeared to possess some memory. His manner of answering a question was very remarkable; he hesitated, seemed to recollect with difficulty, and answered as if in doubt. He tottered in his gait, and had a remarkable tremor in his left arm and hand: the tongue, when protruded, was drawn to the left, and there was also strabismus of the left eye, symptoms which appear to have been present at the time of his entrance into the hospital.

Mr. Porter, under these circumstances, cut down upon the bone, and found an irregular fracture of nearly an inch in length, one side of which was depressed to the depth of little more than three lines. The trephine was then applied, in order to permit of the elevation of the depressed bone, but the internal table was found to have been so extensively broken, that three crowns of the instrument were removed before all the fragments could be exposed and taken away; one large portion had penetrated the dura mater, and entered the substance of the brain, the removal

of which was followed by considerable hemorrhage, appearing to come from some vessel of the brain itself, and which could only be controlled by the application of several compresses, and such a degree of pressure as evidently affected the functions of the organ.

During the remainder of the day the patient continued listless and half asleep. The pulse was slow, small, and weak. On the next day he was nearly insensible to external objects; the evacuations were passed involuntarily; the pulse was weak and labouring. On the removal of the compresses and dressings he became more lively, and his pulse more full. On the following day (June 30th) he appeared much more sensible. The pulse was 86, and strong. On the 1st July, the patient became sensible, for the first time, of his natural wants. The pulse was 110.

He progressively improved until the 16th, when he had several severe rigors and trembled violently. He was drowsy and stupid—the eyes were peculiarly wild—the pulse rapid and fluttering. He again became unconscious of his natural wants, and fell into nearly an idiotic condition. The tremors were remarkable, especially those of the left arm and leg. The bottom of the wound was covered with white granulations, resembling fungus, and the discharge was very profuse and rather fetid. The treatment for the previous symptoms had been strictly antiphlogistic. He was now ordered calomel and opium so as to affect the mouth.

In proportion as the mercurial action was developed, the symptoms passed away, and on the 28th, the patient was pronounced convalescent. After his recovery, he is said to have remembered most of the circumstances that occurred during his illness, which is rather extraordinary, considering that he is described to have been unconscious of his natural wants, to have lain in a kind of slumber, and to have been nearly idiotic.

In the November following, the patient was so well as to walk to Dublin, a distance of twenty-three miles.

This case seems to display the good effects of mercury in the secondary inflammation of the brain and of its membranes, which ensues after injuries of the organ, and operations on the cranium. We have drawn attention to this fact upon several occasions, and we cannot take a better opportunity of enforcing it, than by reference to the particulars of the case before us. It is more than probable that, but for the mercurial influence, the patient would have suffered from formation of pus, the consequence of inflammation within the cranium.

CASE 3. *Bronchotomy for the removal of a Foreign Body, supposed to be in the Larynx.*

James M'Mahon, æt. 14, admitted Aug. 27.

In the previous June, whilst eating some beef-hash, a piece of bone or gristle seemed to have stopped in his throat and he was instantly seized with all the symptoms of suffocation, violent cough, &c. He remained in this state for some days, with great pain and difficulty of swallowing, and of turning the head to the left side. He was taken to a hospital, where a probang was passed down the æsophagus with slight temporary benefit. The symptoms soon returned with violence. The following are the symptoms observed on his admission into the Meath Hospital.

"Deglutition so difficult and painful as to make him refrain from drinking, although very thirsty; he cannot turn his head to the left side without great suffering; voice nearly lost; breathing loud and sibilous; the wheezing greatly increased during the spasmodic paroxysms, which are very frequent. The face is pale and livid, the lips purplish. He opens his mouth badly, but as far as the condition of the fauces can be ascertained, there are no traces of inflammation. On passing the finger into the fauces, the epiglottis can be felt of its natural size, and healthy. Pulse rapid; skin hot and dry."

Supposing that some foreign body was impacted in the larynx, Mr. Porter proposed the operation of tracheotomy, to which the mother refused her consent for two days, when it was granted.

The operation itself proved extremely difficult; and, although much thick mucus was expelled, the patient was little, if at all, relieved by it.

We need not pursue the detail of symptoms. It is enough to say that, whenever the wound became obstructed by mucus, the dyspnœa was frightful, and productive of immediate danger—that it was necessary to have a tube in constant readiness for introduction upon such occasions—that respiration was solely effected by the wound, and was arrested by its closure, though a large-sized bougie could be passed through the rima glottidis—that gradually the paroxysms of suffocation grew less frequent—that the patient had two attacks of bronchitis—that, after the lapse of some months, the passage of air through the larynx could be effected, and the patient could remain with the tube closed for half an hour, or for more—but that even very lately, when Mr. Porter saw him, he did not dare to sleep without the tube in the artificial opening.

As a foreign body was never discovered nor expelled, and as a probe could be passed through the rima glottidis, when the difficulty of breathing was at its utmost height, it seems reasonable to suppose that the latter symptom was chiefly due to spasm of the muscles of the glottis, kept up, perhaps, by inflammatory action in the larynx. This, however, is conjecture. The fact remains, and a curious one it is.

CASE 4.—*Disease of the Lymphatics of the Arm—Amputation at the Shoulder-joint.*

Michael Hughes, æt. 29, admitted Nov. 27th, 1833.

"The limb is semi-flexed and slightly swollen at the elbow; the hand bent downwards at the wrist; the knuckles bent also, and every one of these joints permanently rigid. There is an eruption on the hand, which is itchy and troublesome. The veins of the arm swollen and prominent, but not hard or knotted. The pulse at the wrist so weak as to be scarcely perceptible.

An irregular line of small tumours, resembling tubercles, extends along the arm from the axilla in which the largest is situated; they are of a stony hardness, and firmly attached to the adjacent structures; some of them are ulcerated, others surrounded by a dark blush of inflammation. The pain he experiences is dreadful, and deprives him entirely of rest. He entreats that something may be done for him, and will submit to any operation that holds out even a chance of relief. The history of this case is shortly this. The tumour in the axilla was the first formed, and appeared four years previously, after a day of very hard work; its growth was slow and irregular, sometimes increasing, sometimes diminishing, and never very painful. The gland next below it then swelled, and thus the disease continue to spread along the arm in the direction contrary to the course of absorption."

Several months previously, he had been in the hospital under the care of Dr. Graves, who prescribed iodine and other remedies without the slightest benefit. He quitted the establishment on hearing of the possibility of an operation.

On the present re-admission, Mr. Porter determined to perform amputation at the shoulder-joint, although the patient had a slight cough, and the expectoration was triflingly tinged with blood. It was found during the operation, that the artery, vein, and nerves were encompassed by the tumor in the axilla. The patient left the hospital at the end of five weeks, but he continues to suffer from pectoral symptoms, and his ultimate recovery may justly be considered as highly improbable.

The dissection of the arm exhibited a number of the lymphatic glands indurated, others ulcerated, but all exhibiting proofs of their malignant nature. Several glands, however, were found healthy, and without any alteration of structure. One in the axilla, close to the large original tumor, was slightly increased in size, and softened in consistence. The artery, vein, and nerves had passed through the centre of the indurated gland, and the former vessel had been so compressed, that its calibre scarcely equalled that of a small crow-

quill. The axillary vein was also compressed, whilst the cephalic was increased in size. Having passed the tumor, the artery again seemed to expand into its natural size, but still the compressed state of the vessel was indicated before the operation, by the smallness and feebleness of the pulse. The distention of the superficial veins shewed, that the circulation through the deeper trunks was more or less impeded.

Mr. Porter supposes that the eruption on the hand was connected with the condition of the nerves. It is perhaps more likely to have depended on the state of the circulation and absorption. In three cases of subclavian aneurism, Mr. Porter has observed a similar eruption and crookening of the fingers, which were removed after the operation, when the pressure of the tumors was no longer exerted.

"I had intended (says Mr. Porter) to have added some other cases to this report, as having occurred within the past year: amongst them that of the man whose face was nearly eaten off by a pig, but independent of the length to which these details have been already drawn out, I find, that the interest of this case would not compensate for the disgust its perusal would occasion. It merely tended to show, first, that a man deprived in this rough manner of his nose, both cheeks, both lips, and part of both ears, might recover notwithstanding; and secondly, it exemplified the uses of the lips to the functions of speech, mastication, and deglutition. It was remarkable, that soon after the accident, he could pronounce the labial letters tolerably well, a power which he lost as the wound progressed in healing, and of which he was entirely deprived before he left the hospital. His articulation of course was very indistinct. He lost more than half of the solids he attempted to chew, for want of the lips to keep them under the teeth, and a considerable portion of the fluids escaped in his attempts to swallow. His chief regret was the being deprived of the use of tobacco, which he was incapable of using in any form, on account of the loss of his nose and lips. All the saliva secreted by the parotid glands escaped, and several attempts were made to ascertain the quantity produced in a given time, but they were defeated by the irritability of the patient. Although deprived of so large a portion of this fluid, I did not find that the process of digestion was at all impaired."

We feel obliged to Mr. Porter for his report. We trust that he will persevere, and that many of his compeers will not draw back from the good work.

Glasgow Royal Infirmary.

Clinical Report on Erysipelas. By Dr. Macfarlane.

The succeeding cases are contained in the volume of clinical facts published by Doctor Macfarlane. To that volume we have referred upon several occasions, and to it we shall take convenient opportunities of referring again. Cases such as those of which it is made up, are not of a day, but of all time. They do not possess the ephemeral interest that attaches to novel speculations, or new-furbished theories, but may be studied when the false gloss of novelty is rubbed off, and when truth displays its simple and its sterling qualities. The great object of the Editors of this Review has long been, and will still be, to endeavour to direct the taste of its readers to inductive reasoning—to point out the intrinsic value of facts, and the meretricious vanity of hypothesis. They venture to hope that their labours have not been altogether unsuccessful; and they feel encouraged to persist in the attempt at working a substantial reform in practical medical literature. There are some who misconceive, and many who resent their conduct—who think, or who affect to think, that their disregard of theory is founded in critical perversity—their expressed contempt for speculation, in indolent levity. These gentlemen may have their way. They are adapted for the olden days of doctrines and of systems, but they cannot compre-

hend the spirit of present science, in its genuine sense. Let them worship at the shrine of Hippocrates and Galen.

Erysipelas is a disease in which the absurdity of dogmatism is apparent. The nosologists scarcely know where to place it—the systematics cannot tell how to treat it. One informs the timid and wavering student that it is a purely inflammatory malady, and that bleeding, purging, antiphlogistic remedies of all kinds, are indispensably required for it. Another exclaims that this practice is murderous—that erysipelas is atonic, asthenic—that bark and brandy are necessary to enable the patient to fight against it. The modern surgeon might despairingly inquire, with the ancient sage—Where is truth?

When we avert our eyes from this dogmatic warfare, and turn to the contemplation of nature itself, we find no exclusive theory supported. Her facts are various—her objects are diversified. Erysipelas is not observed to dsiplay universally the same characteristics, any more than the constitutions and the habits of its subjects are found to be precisely of the same description. The pale countryman and the squalid mechanic of the crowded town's most crowded lane, are perceived to be both affected by the malady: and none but a Laputan sage,* or a medical Philosopher Square, could suppose that persons in such opposite circumstances, of such opposite degrees of constitutional power, could exhibit similar phenomena, or require similar treatment. Mr. Lawrence, a vigorous advocate for depletion, and a cordial opponent of stimulating treatment, under almost any circumstances, has adopted a singular argument on this occasion. As he cannot altogether deny the fact, that the constitutions of persons in the country and the town do exhibit some dissimilarity, he has asked triumphantly, where we are to draw the line? at what mile-stone the district of the countryman begins, and that of the Londoner ends? if the resident of Brompton should be bled or barked? This may be witty, and is fallacious. The ready answer to Mr. Lawrence's inquiry is this:—Go study Nature, and see where she has drawn the line—disregard the mile-stone, and feel the pulse—ascertain the previous condition of the patient—observe the actual characters of the attack—if his face is flushed, his skin hot, his heart beating vigorously, his tongue white, and especially if symptoms of inflammation of some organ are displayed, then resort to antiphlogistic treatment; but if, upon the other hand, you find him emaciated, pallid—his pulse weak—his tongue trembling—the tint of the erysipelas purple, or pale, then withhold the lancet for God's sake,and exhibit the stimulants or tonics, which symptoms, if they be Nature's language, demand in a tone that should not be mistaken, and must not be contemned.

Dr. Macfarlane relates some cases of erysipelas. We think that, in a volume of clinical reports,more space might be usefully devoted to a subject of such paramount importance, and one on which disputes have run so high. Dr. Macfarlane, however, offers some compensation for his brevity, in the sensible remarks which he makes upon the nature and treatment of the malady. To those observations we shall draw attention first, and introduce some of the cases afterwards.

Dr. Macfarlane admits the natural distinction into cases in which inflammatory action predominates, and those in which the symptoms are indicative of want of power.

"It must be evident, from what has been already stated, that although the disease is always, strictly speaking, accompanied by inflammation, yet it is occasionally met with when, from the trifling degree of local excitement which exists, and the feeble state of the patient, antiphlogistic treatment is decidedly contra-indicated. To have recourse in such cases to local or general bleeding, purgatives or antimonials, would only tend to accelerate the progress of

* In Laputa, Gulliver informs us that the worst coats he ever saw were not cut by measure, but on abstract mathematical principles.

the inflammation, and to aggravate that peculiar condition of the system upon which the original development and propagation of the disease depend. Besides, the actual presence of inflammation does not always warrant us in adopting depletory measures. In scrofula, and particularly in some forms of strumous ophthalmia, although inflammation be decidedly present, we do not hesitate to prefer tonics and stimulants to antiphlogistic means; on the contrary, daily experience teaches us, that the latter class of remedies, if employed to the extent which the local inflammation seems to call for, will often produce the most injurious effects."

We repeat that the great rule is to study the individual case, and the best practical surgeon is he who can do so with most judgment and discrimination.

"I am ready to acknowledge, however," continues the reporter, "that in a great majority of cases, erysipelas is most effectually controlled by antiphlogistic treatment, such as venesection, local bleeding, by means of leeches, scarifications, &c.; emetics, purgatives, diaphoretics, &c. These means are generally resorted to in this hospital, and the affected parts are covered with a spirit lotion, unless there exists a good deal of vesication, when dry flour or fleece cotton is applied."

If Dr. Macfarlane has found venæsection required in the great majority of cases in Glasgow, we must say that we have not found it so in London. In the greater number of instances that have fallen under our observation, and the experience of a large hospital has shown us not a few, the patients required neither bark nor bleeding, but did extremely well under simple treatment—occasional purgatives, diaphoretics, diluents, and light tonics on the subsidence of the complaint. An emetic in the first instance, and one or two doses of calomel to stimulate the action of the liver, are usually productive of advantage.

Dr. Macfarlane recommends spirit lotion as an ordinary application, but prefers dry flour or fleece cotton if much vesication exists. We conceive that some discrimination is necessary in selecting warm or cold applications. If the erysipelas is of an active kind, and the patient strong, cold spirit lotions are usually most grateful, if not most advantageous. But if the tint of the erysipelas is dull, the patient debilitated, and if a disposition to much shivering exists, warm fomentations appear, on every account to be preferable.

Dr. Macfarlane has not noticed the application of slight pressure in some cases of erysipelas, in which, along with a languid condition of the patient and a pale or purplish tint of the eruption, there is a disposition to œdematous swelling of the subcutaneous texture. The employment of strips of linen or calico, spread with a mixture of soap cerate and lead ointment, and gentle compression by means of a bandage over these, appear to be serviceable in obviating the occurrence of small collections of matter which are frequently found in cases of this character.

"In several cases of traumatic erysipelas, I have succeeded, after free vomiting and purging had been produced by the emeto-cathartic mixture, in arresting the progress of the disease, by rubbing the inflamed surface with lunar caustic. By this local stimulus, the morbid action of the part seems to be changed, its extension prevented, and in a few days the blackened cuticle is thrown off, without producing the slightest deformity. I have also attempted to circumscribe the disease when confined to the extremities, by encircling the limb a little way above the seat of the inflammation with a narrow stripe of blistering plaster. This was only successful when the erysipelatous affection was purely cutaneous, and not when the subjacent cellular substance appeared to be in the slightest degree involved."

The latter paragraph is quite in accordance with our own experience.—We have never seen benefit, though we think we have found mischief from the application of lunar caustic when the cellular tissue was affected. Even in the purely cutaneous erysipelas, which is very rare, we have seen the Rubicon formed by the caustic, passed; whilst

in those instances, in which the erysipelatous inflammation seemed hemmed in, we have not been persuaded that the patient did better than under ordinary circumstances. On the whole, we are not advocates for the use of lunar caustic.

"In phlegmonous erysipelas, I rarely have recourse to general blood-letting, and that only when the patient is young and robust, the pulse full and strong, or when, during the progress of the disease, the meninges of the brain become affected; the propriety of local bleeding, however, can hardly be disputed. For this purpose leeches are freely applied, and when the disease is in an incipient state, and the tumefaction and tension are inconsiderable, its progress may by such means be often arrested. I have only twice had an opportunity of adopting the practice of making numerous small punctures into the affected part, as recommended, and apparently so successfully employed, by Dr. Dobson of Greenwich Hospital.* In one of these cases, the affection was consequent on a wound of the scalp, and was decidedly benefitted by this treatment; but in the other, which was an acute case of phlegmonous erysipelas of the leg, more than one hundred punctures were made with but trifling advantage. A considerable discharge of blood was obtained; but, when the punctures penetrated the cellular substance, in order to unload this texture of the effused serum, it was found that many of the openings became speedily closed by the protrusion of minute portions of adeps, by which the farther escape of fluid was prevented, and but little effect was produced on the tumefaction or tension of the limb.

The most powerful and decided method of checking this troublesome disease, is that by incisions into the affected parts,—these being carried through the integuments and cellular texture, and even through the fascia, should the disease appear to have penetrated so deeply. This practice has been almost uniformly adopted during the last ten or twelve years by the different surgeons who have officiated in this hospital, and, so far as I have learned, its results have been eminently successful, and have tended to confirm the favourable statements of Mr. Copland Hutchison,* who is justly entitled to the credit of having first introduced this powerful and efficient treatment. If incisions are employed at an early period of the disease, they remove tension, and, by diminishing vascular action, check the progress of inflammation, and prevent those diffuse and destructive suppurations, with sloughing of the cellular texture, which are so apt to ensue. Even at a more advanced period they are useful, by facilitating the discharge of purulent or seropurulent fluid, and the separation of sloughs; and they also tend to limit the ulcerative destruction of the integuments. The diminution of the pain, redness, and swelling, is often strikingly visible after this practice has been adopted, and the relief of the constitutional symptoms is seldom less apparent."

We have tried Dr. Dobson's method in some cases, and have seen it tried in many. We do not entertain a very high opinion of it. In the majority of instances it did no good, and considering that it is painful, we think this a powerful objection. In fact we believe that, in cases where the cellular membrane is little implicated, punctures are seldom necessary; and where it is severely affected they are useless. At the same time, there may be cases in which the discharge of serum from the distended cellular tissue may tend to prevent suppuration and sloughing.—We do not wish to proscribe the practice, but it has not been our lot to see much advantage from it.

In cases where there is considerable effusion in the subcutaneous cellular tissue, where the skin is intensely red, or where it is affected with a contary condition, being purplish and inclined to slough, in such cases no practical

* Medico-Chirurgical Transactions, vol. xiv. p. 206.

* Medico-Chirurgical Transactions, vol. v.

surgeon will hesitate for an instant to make bold incisions.

Dr. Macfarlane offers some remarks on the comparative advantages of large and small ones.

"I have attempted, in several cases, to contrast the practice of Mr. Hutchison, who makes a number of small incisions into the affected parts, with that of Mr. Lawrence, who recommends one or two long incisions to be made in a direct line through the middle of the inflamed surface. When the disease extends over an entire extremity, and the tension is uniformly diffused, and so great as to indicate an affection of the subfacial cellular texture, I have experienced more benefit from one or two long incisions, than from smaller and more numerous ones. But when the disease is exterior to the fascia, as most frequently happens, and there exists an unequal degree of swelling and tension in different parts of the affected surface, at some distance from, and not in a direct line with, each other, indicating the presence of gangrene or suppuration, in circumscribed portions of the cellular texture, one or two long incisions have not appeared to me to be so successful in either relieving the urgent symptoms, or checking the progress of the disease, as making a number of small cuts into those detached and distant parts of the inflamed extremity in which the swelling and tension predominate."

This is judicious advice, and we know not that we could usefully add to it. It is evident that on this, as on other occasions, the dispute has been carried to extremes, and that circumstances must regulate the length, as well as the situation of incisions. We must say that in general one free incision is better than two or three imperfect ones, but a cut of more than a certain length becomes of itself a serious complaint.—We repeat that the management of the individual case must be left to the discretion of the surgeon.

We shall now present some of the cases.

CASE 1. *Erysipelas of the Face, treated by Stimulants and Tonics.*

"M. O., æt. forty-six, when admitted on the 6th May, 1826, had the right side of the face affected with an erysipelatous inflammation of a dull red colour, which had commenced three days previously on the right cheek, where the cuticle had been accidentally abraded. He was a dissipated and debilitated subject; his pulse was one hundred and twenty, and feeble; the tongue dry and furred; but the skin was cool, and the functions of the sensorium undisturbed. The affected parts were covered with flour, and, after opening the bowels by a mild purgative, two grains of the sulphate of quina were ordered every six hours in an ounce of wine.

On the 8th, the disease had extended over the scalp to the opposite side; the pulse was more rapid and feeble; the pupils contracted and irritable; the tongue typhoid; and there was hiccup, with low muttering delirium and drowsiness. The wine was increased, small doses of the carbonas ammoniæ prescribed, and the quinine continued. In five days the inflammation had ceased to spread; the cuticle desquamated; his strength improved; and he was dismissed on the 28th."

This case displays a feature which is not uncommon. A patient with erysipelas is apt to become low in a sudden manner. On one day the symptoms are scarcely alarming—on the next, they may wear the worst characters of typhus. It is the anticipation of this rapid depression that constitutes a great part of the surgeon's tact in the treatment of this disease. He must learn to distinguish when the pulse is beginning to falter, when the tint of the erysipelas is altering or waning, when the constitution is tired of its efforts. Unless he can do this he will probably lose many patients during his career. The following case may afford some illustration of these remarks.

CASE 2. *Fatal Erysipelas.*

"M. F., æt. 8, had been in the Infirmary for several weeks, in consequence of an ulcer on the abdomen, between the pubes and umbilicus, which had nearly healed, when erysipelas commenced on the surrounding

integuments, on the 1st of July, 1826. The disease extended rapidly over the abdomen, front and sides of the chest, neck, shoulders, and arms, and the affected parts were hot, painful, of a bright red colour, and, in some places vesicated. Vomiting and purging were produced by the emeto-cathartic mixture; a few leeches were applied, and afterwards a tepid spirit lotion. On the 2d, she was delirious; the inflammation was extending; the tongue was typhoid; the pulse was rapid and feeble; and the prostration of strength more decided. Wine, quina, and carbonas ammoniæ were ordered; and, during a continuance of the tonic treatment, the inflammation lost its vivid red colour, and ceased to extend. Her strength, however, decreased rapidly; vomiting and hiccup supervened; she became comatose, and died during the night of the 5th, with all the symptoms of typhus gravior.

The only morbid appearances discoverable on dissection, were superficial and deep-seated congestion of the brain, with a slight effusion of serum under the arachnoid.

We here see how rapidly prostration supervened—how feeble were the powers of medicine when it had occurred. Let not the young practitioner be rashly tempted into *active* antiphlogistic treatment in the early stage of erysipelas. He may repent it.

CASE 3. *Phlegmonous Erysipelas of the Arm—cured by Incisions.*

A. R., æt. 49; when admitted on the 3d of February, 1832, his left arm, forearm, and hand, were greatly swollen, tense, and of a dark red colour, the disease having commenced six days previously without any known cause. The affected parts were hot and painful; there were several large vesications on the inner side of the fore arm, which contained milky serum and greenish-coloured lymph, and on the outer side, in one or two places, obscure fluctuation was perceptible. Four incisions were made through the skin and cellular membrane of the fore arm, (two of these were five inches, and the others two and a half inches in length,) and gave exit to a small quantity of pus. The divided integuments retracted considerably, and the tumid cellular substance, which had a red appearance, bulged out at the incisions. Immediate ease was obtained; the inflammatory appearances and constitutional excitement diminished rapidly; and when the bleeding had stopped, which amounted to twelve ounces, oiled lint was applied to the incisions, and the arm covered with a tepid spirit lotion. In a few days resinous ointment was substituted, and a bandage applied, under which the parts continued to heal slowly.

We have only room for allusion to another subject, erysipelas of the scalp.

"When erysipelas affects the head, the skin, and subjacent cellular texture are the parts generally affected, and the ordinary antiphlogistic means seldom fail in removing it. But when the disease is seated under the aponeurosis, diffuse suppuration and sloughing are speedily produced, unless prevented by the free and timeous use of incisions. I have seen more than once the neglect of this treatment prove fatal. During the Summer of 1826, a robust labourer was admitted into the Infirmary under my care, several days after an attack of phlegmonous erysipelas of the scalp had terminated in extensive suppuration. The head was enormously swollen; the scalp, which was ulcerated in various points, had a spongy or boggy feel, and was completely detached from the skull. Although incisions were employed to favour the escape of matter and the separation of sloughs, nearly the whole integuments of the head were destroyed by ulceration, and the patient died in a few days from effusion on the brain."

In a former number of this Journal we gave a very full report on erysipelas of the head and face, and on diffuse inflammation of the cellular tissue beneath the aponeurosis of the occipito-frontalis muscles. In that report will be found an attempt at pointing out the distinctive marks of this serious affection, and cases illustrative of the value

of incisions. This is a subject of the utmost practical importance. We shall copy one case from Dr. Macfarlane.

Case 4. "A. C. æt. 38, received a small puncture-wound over the middle of the left parietal bone, on the 7th of February, 1827, and on the 10th he was admitted into the Infirmary. There was a slight blush of redness around the wound, which appeared to be suppurating, and the integuments of the left side of the head were greatly swollen, painful and œdematous. He complained acutely of pain and throbbing in the head; the pulse was 108, and strong; the tongue furred, but moist; the skin hot and dry. He was immediately bled to twenty ounces; twenty-four leeches were applied to the left side of the head, followed by a cold lotion; and free vomiting and purging was produced by the emeto-cathartic solution. On the 11th the disease had extended to the right side and fore-head; the swelling and pain had greatly increased, and the general disturbance was aggravated. Notwithstanding a repetition of the leeching, with frequent doses of calomel and James's powder, the progress of the disease was not arrested. On the 12th, the whole scalp was involved, and the integuments, although little discovered, were enormously swollen, and pitted on pressure.

As, besides the affection of the subcutaneous cellular tissue, there was also present a considerable tumefaction of the parts under the aponeurosis; and as the ordinary antiphlogistic means had failed in controlling the disease, I made six incisions into the scalp, in various points, each being about two inches in length, and carried through the aponeurosis. Sixteen ounces of blood, apparently arterial, were lost; the pain was immediately relieved, and the swelling diminished rapidly. For several days there was considerable discharge from the wounds, but no sloughing of the exposed cellular substance took place. He left the hospital, quite recovered, on the 2d of March."

In conclusion we may hint some deficiences in this report. The varieties of erysipelas might have been discriminated with more precision—the progress of the disease, and the characters requiring alterations in the treatment might have been more pointedly described—the distinction between the ordinary erysipelas and diffuse inflammation of the cellular tissue might have been an useful subject of allusion. We certainly think that so practical a surgeon as Dr. Macfarlane might have remedied these deficiencies even in a report. Yet still we are pleased to find that he has adopted such judicious views, and recommended such appropriate treatment.

BIRMINGHAM EYE INFIRMARY.

REPORT FOR THE YEAR 1833. By Mr. MIDDLEMORE, Assistant-Surgeon.*

The following numerical statement displays the relative frequency of various affections of the eye; amongst the poorer classes in Birmingham, and probably in most great towns.

Simple acute conjunctivitis, 230. (*a*) Chronic conjunctivitis, 112. Acute conjunctivitis, with pustules on the conjunctiva, 123. Acute conjunctivitis, with pustule or ulcer on the cornea, 124. Acute conjunctivitis, with puriform secretion, 87. Purulent conjunctivitis of newly-born infants, 41. Irritable conjunctivitis, 44. Strumous conjunctivitis, 70. Pterygium, 7. Corneitis, 13. Vascularity of the cornea, 11. Opacity of the cornea, 149. Conical cornea, 5. (*b*) Staphyloma of the cornea, 12. Impaction of foreign bodies in the cornea 17. Simple acute sclerotitis, 4. (*c*) Rheumatic sclerotitis, 11. Staphyloma of the sclerotica, 4. Morbid attennuation of the sclerotica, without distinctly-formed staphyloma, 3. Affections of the membrane of the aqueous humour 14. Simple acute iritis, with or without ulcer or opacity of the cornea, onyx, or hypopion, 47. Chronic iritis, 9. Syphilitic iritis, 6. Strumous iritis, 7. Prolapse of the iris, 6.

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* Provincial Transactions, Vol. II.

Fungus from the iris, 5. Vacillation of the iris, 5. Cataract, 17. (*d*) Dislocation of the lens, 15. Choroiditis, 7. Retinitis, 2. Glaucoma, 4. (*e*) Hydrophthalmia, 2. Suppuration of the eye-ball, 7. Atrophy of the eye-ball, 3. Fungoid, and various anomalous tumors of eye-ball, 4. Neuralgia of the eye-ball, 7. Oscillation of the eye-ball, 5. Amaurosis of various kinds and degrees, 100. Diseases of the lachrymal passages, 19. Epiphora, 14. Strabismus, 8. Tinea, 105. Lippitudo, 12. Hordeolum, 5. Ectropium, 3. Entropium, 6. Inflammation of the eye-lids, 16. Œdema of the eye-lids, 9. Ulceration of the eye-lids, 6. Ptosis, 4. Adhesion of the eye-lid of the globe, 3. (*f*) Tumours in the eye-lids, 27. Wound of the eye-ball and its appendages, 42."

CHANGES IN THE TARSAL CARTILAGES.

Mr. Middlemore alludes to a fact which he has observed—that obstinate chronic inflammation of the conjunctiva occasionally depends on a morbid state of the tarsal cartilages. Surgeons should be familiar with the fact, in order to avoid the liability to error in forming their prognosis.

"Several obstinate cases of chronic inflammation of the conjunctiva, depended on a shrivelled, uneven, an irregularly ossified state of the tarsal cartilage, and, although not absolutely curable, were yet capable of considerable alleviation by appropriate treatment. In very old persons, changes, in the figure, the size, the consistence, and other characters of the tarsal cartilage, frequently take place, and, among these alterations, the undue incurvation of its extremities, or a shrivelling of its texture, with the deposition of specks of ossific matter, are the most common; and, of course, any material irregularity of surface or change of figure it may undergo, will influence the surface and condition of the palpebral conjunctiva which covers it, and produce certain effects upon the eye, correspondent, in their extent, to the changes the conjunctiva may have sustained. In a case of tumour of the eyelid which I recently attempted to remove, I was surprised to find that it consisted of a mass of cartilaginous matter, deposited upon the cutaneous aspect of the tarsal cartilage; it was, in fact, nothing more than a great and irregular enlargement of that part."

STAPHYLOMA.

Mr. Middlemore recommends an operation for staphyloma, which he has now practised for many years. It is only a slight modification of the practice recommended by Scarpa, Guthrie, and others for some forms of the disease, but Mr. Middlemore considers its applicability more extensive, than they would appear to have done. He relates a case in illustration of his opinion and advice.

Case. Sarah Mace, æt. 20, has a large spherical staphyloma of the left cornea, consequent on an attack of gonorrhœal ophthalmia. The diseased eye-ball is somewhat inflamed, and the opposite eye is in a very irritable state.

"Having placed her upon a table as for the operation of extraction, I introduced Beer's knife, at about an equal distance from the summit and base of the staphyloma, and brought out its point at a corresponding situation on the opposite side, and by gently urging the knife forward, a small semicircular flap was formed, which was immediately removed by the convex-bladed scissors, by an incision which constituted, as respects its outline, a portion of morbid cornea, of an equal size, and of the same form. The lids were then carefully closed, and a roller so applied, as to keep them in apposition with the globe.

The operation occasioned very little pain; no bad symptom followed its performance, and in the course of a few days the opening in the cornea had closed, chiefly by the adhesion of its edges to a small portion of lymph in the centre. As this lymph became absorbed, the part diminished in magnitude, and at the present time, the previously staphylomatous eye is smaller

than the opposite and healthy globe, which is partly owing to the partial absorption of the morbid cornea, a circumstance which generally takes place when a portion has been removed from its centre for the cure of staphyloma."

Where the eye-ball is much enlarged, and the divided edges lie widely apart, it is better to bring them into contact, for the purpose of preventing the reproduction of the malady, of obviating the occurrence of acute inflammation of the exposed interior of the eye-ball, and, also, of diminishing the risk of staphyloma, which is apt to occur if the interior of the globe becomes filled with fresh secretion, before the matter of reparation possesses a sufficient degree of firmness to resist the pressure from within.

RHEUMATIC SCLEROTITIS.

The real nature of this disease is often overlooked, and its progress is consequently unchecked. If the inflammation is obstinate, the pain intense, and somewhat periodical, the eye-ball not being particularly vascular, and the deep-seated textures being unaffected with evident acute inflammation, Mr. Middlemore is in the habit of employing the following treatment, with success.

An active cathartic is first prescribed, and, afterwards, a few grains of calomel and Dover's powder, to be taken every night at bed time, and three or four grains of quinine about thrice daily. A small quantity of the strong mercurial ointment, blended with a grain of opium, is directed to be rubbed above the eye-brow, about the situation of the supra-orbitary nerve, every evening, if the pain in the eye-ball and orbit is intensely severe. If this plan fails to afford much relief, half a drachm of the wine of colchicum is directed to be taken thrice daily, and two pills are given in the evening, consisting of five grains of blue-pill, and six of the extract of conium. By these means, with the aid of fomentations, Mr. Middlemore is seldom foiled in his treatment of the complaint.

DISLOCATION OF THE LENS.

Passing over some remarks of Mr. Middlemore's, we may state that it is his object to point out the general mode of practice adapted for the relief of the more common cases of this affection.

An adult patient, perhaps, presents himself at the Infirmary, who, after sustaining a severe fall upon the head or concussion of the body, or after some violent straining effort, may have perceived a dimness of vision,* and uneasiness and inflammation of the eye-ball. On carefully examining such an eye, it will, very probably, be found that the lens is slightly opaque, that it is pressed, but not forcibly, against the iris; and that there is some degree of external ophthalmia, with a slight zonular arrangement of vessels around the cornea. In such a case, different surgeons would pursue different methods of treatment. Some would directly remove the lens—others would merely resort to measures for the relief of the inflammation—and others would diminish the inflammation first, and then extract or break up the lens. For reasons into which we need not enter, and many of which will be obvious to those acquainted with ophthalmic surgery, Mr. Middlemore recommends the last-mentioned mode of treatment—the subduing of the immediate acute symptoms, and the subsequent removal of the lens, if it has not been absorbed, and if it constitutes an adequate personal deformity, or continues to augment the severity or prolong the existence of inflammation.

If the dislocation of the lens is associated with a blow on, or wound of, the eye, then the nature of that injury must be taken into consideration. Mr. M. believes that, as a general rule, it would be useless and injurious, in such circumstances, to attempt the extraction of the lens. The dislocation of the lens, and the inflamed condition of

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* "The dimness of vision may, of course, depend on *concussion of the retina*, and may not be owing to the displacement of the crystalline."

the eye, are excited by the same cause, the violence of the injury inflicted.

"There is one other variety of dislocation of the lens, to which I shall, for a short time, direct attention; and it will afford me great pleasure if my brief allusion to it, should induce surgeons of greater experience, to favour the profession with their opinion, of a condition of disease which is sometimes adequate, to render the subject of it a burdensome and comparatively useless member of society.

A blow upon the eye may displace the lens and its capsule, and, at the same time, rupture the hyaloid membrane; or it may inflict such injury upon these parts, that the septa of the hyaloid membrane may become absorbed, and the vitreous humour acquire a morbid fluidity, so that the lens will sink backwards and rest upon the retina, and, by its compressive effect, cause total amaurosis. Now, in such instances, an examination of the eye, with the head inclined backwards, will detect a vacillating iris, and a slightly green-coloured body (which is the most common change of colour that the lens undergoes under such circumstances,) at the lower and posterior part of the globe; and, whilst in this position, the vision of such an eye will be entirely destroyed. If the patient move the eye-ball freely and rapidly, the lens, or a greenish or amber-coloured body, will be seen to roll about in the eye. If the patient lean the head forward, the lens will rise into its proper place, or, perhaps its upper margin may be seen, if the pupil is somewhat large, and he will be able to see in this position, not perfectly, but sufficiently well to find his way about, even in walking in a strange road, or in a place to which he has not been accustomed. Now it may happen that, in some of these cases, the lens may not be wholly detached, a slight connexion still existing at its lower margin, and then, of course, it will not float about so freely in the vitreous humour, and will more readily come forwards if the head be inclined in such a direction; in other instances, the lens and its capsule appear to be wholly detached from the hyaloid membrane, and, of course, when this takes place, the crystalline body will, in the erect position of the body, sink downwards, as an effect of its weight, and, by resting upon the retina, induce complete amaurosis.

I have seen many of these cases recently, and shall briefly refer to one or two of them, but I must confess, I had never noticed this form of injury, until my worthy and enlightened friend, Mr. Smith, of Southam, obligingly sent to me a man, in whom the lens passed freely into either chamber of the eye, in accordance with the position of the head, sometimes coming in front of the iris and pressing that membrane (which was in a state of vacillation,) towards the retina, and on leaning the head backwards, it would pass the pupil and resume its proper position, so that, I apprehend, in this instance, the hyaloid membrane was entire. It may be desirable to state that the lens preserved its transparency."

Mr. Middlemore mentions two other cases, which, however, we need not introduce. He observes, with respect to the treatment, that the lens cannot be broken up or destroyed by any means short of extraction. This he thinks it only desirable to perform where the sight of the other eye is seriously impaired, or the affected one is suffering a great degree of irritation from the agitation of the lens, or much interruption to vision from its movements.

"In the instances to which I have referred, I have operated in the following manner. The patient being seated in a chair, with the head a little inclined forward, I make a free incision at the lower part of the cornea, with the triangular extraction knife, and having introduced a small hook beneath the flap, I succeeded in drawing the lens through the opening; in one case, after considerable delay, in the other, without the slightest difficulty. The difficulty in removing the lens, arose from its great mobility, and the impossibility of fixing the hook in the central and more solid part of its substance."

On the Occasional Effects of Tumors in the Eyelids.

Tumors in the eye-lids, and especially when near the tarsal margin, or situated between the tarsal cartilage and the palpebral conjunctiva, or when arising from the latter part, or growing from the precise edge of the eye-lid, will sometimes give rise to acute or chronic ophthalmia, and also excite amaurotic symptoms. Mr. Middlemore frequently removes tumors from the eyelids, for the cure of acute or chronic ophthalmia, which had resisted every variety of previous treatment, but which yields with amazing rapidity to this. He relates three cases of this kind, which deserve attention.

"A child was sent to me, a few days ago, with acute ophthalmia, which, to copy the words of its medical attendant, had refused to yield to every method of treatment he could suggest; it was also mentioned, that a little tumour existed in the eye-lid; but as it was very small, at some distance from the tarsal margin, and inadequate, as was presumed, both from its size and situation, to give rise to any irregularity of the mucous surface, it was considered to have no influence in maintaining the inflamed state of the eye. On carefully examining this child's eye, I found it to be acutely inflamed; and I discovered, also, a minute tumour situate between the tarsal cartilage and the conjunctiva lining the eye-lid; and although I perceived the propriety of removing this tumour, yet, as the eye was a good deal inflamed, I certainly did not consider this to be a favourable time for its extirpation; I therefore recommended various measures which usually relieve conjunctivitis, but without any beneficial result; and I then removed the tumour, at the child's second visit, and with the effect of curing the ophthalmia in a few days, without the use of any lotions or medicines of any kind.

A gentleman had a small granular excrescence at the margin of the upper tarsus, with great dimness of vision of the eye of the same side. I removed this warty growth with a fine ligature; and which eventually removed the amaurosis also, an effect by no means expected or contemplated by the patient.

Miss A. of Birmingham Heath, had a small fungoid growth at the edge of the left inferior tarsus, with various impairment of vision of the left eye. This growth was almost entirely removed by the application of the sulphate of copper: and her sight was completely restored. However, I ought to mention, that she took, at my recommendation, the carbonate of iron during the time she was in attendance at my house, for the purpose of having the sulphate of copper applied to the tumour."

This concludes the report of Mr. Middlemore. He appears to be zealous, industrious, and intelligent; qualities calculated to ensure his success. We trust he will continue to detail the results of his private and public experience.

Middlesex Hospital.

I. Wounds of the Knee-Joint.*

Sir Charles Bell, in a clinical lecture on Injuries of the Knee-joint, published in the Medical Gazette, refers to some cases which have lately occurred in the institution to which he is attached.

Case 1. A boy, 14 years of age, was admitted under the care of Mr. Arnott, with a penetrating wound of the joint. He was a shoemaker; and while he was at work, a sharp knife which he was using slipped, and ran into the knee, about an inch deep; it entered at the inner part of the knee-joint, just above the patella. On admission, a small wound only was observed; but the knee was inflamed, and attended with considerable effusion; there was also pain upon the slightest motion. Leeches and ice were applied, and the wound was covered with plaister and a solution of sealing-

* Med. Gazette, May 17th, 1834.

wax. After this, no bad symptom was observed; at least such was the case seven days after the injury, the period when Sir Charles Bell's lecture was delivered.

The able lecturer observes, that this is "a pleasant case to set out with," adhesion of the outward wound removing apprehension. The next case displays the series of evil consequences which is apt to succeed a wound of the articulation. It may be told in the language of the lecturer.

"There is another case, that of Cooper in Clayton's ward. 'He is 18 years of age, and has had a severe wound of the left knee-joint; it was occasioned by his falling upon his scythe. He is a strong lad. The point entered the knee-joint, penetrated the capsule, and, it is supposed, cut the cartilage. The inflammation is already considerable. Leeches have been applied, and cold lotions; but notwithstanding all the means employed, the inflammation continues unabated.' The next report says, that 'the inflammation involves the whole leg and thigh.' Another report is dated some weeks afterwards; it states that 'abscesses form in succession in various parts of the thigh and leg, as well as in the joint, and that he is now reduced extremely low, being very faint, so that poor hopes are entertained of his recovery.' It appears, that after remaining in this state, in danger of dying from hectic, with night sweats and diarrhœa alternating, the constitution of a fine healthy country lad struggling with the disease, he seemed to rally a little with the assistance of generous diet, wine, porter, and all that could be given him to support his strength. At length slowly and progressively he shewed improvement; the great swelling of the limb subsided, the abscesses closed, and there was a hope of his being dismissed with an anchylosed joint. But then came another mischief, which all are subject to in large hospitals, a relapse, attended with erysipelas involving the leg and thigh, and having a most prejudicial effect on his constitution, and carrying him back we may say three months in the cure. He again recovered; and after being a patient seven months, he was discharged with a stiff joint."

This case affords occasion to Sir Charles to point out the effects to be dreaded when the wound does not unite. Suppuration in the joint—extension of inflammation and suppuration to the veins of intermuscular cellular tissue external to it. On these mischievous results the lecturer makes some eloquent remarks. From wounds of the articulation he slides by an easy process to the subject of loose cartilages. He appears to dread the operation, and deprecates it strongly unless the disease is productive of most serious inconvenience. He mentions the case of a young surgeon who was absolutely precluded from successfully pursuing his profession. When he was called to a patient, and at the moment when he was about to cross the saddle, the loose cartilage would frequently get between the heads of the femur and the tibia, when he required to be lifted from his horse, to be placed in bed, and to remain there for some days.

Under ordinary circumstances the best plan is to apply an elastic bandage and compress, which will cause the absorption of the effused synovia which occupies the joint. The bandage confines the loose cartilage in its recess, and prevents its getting between the ends of the bones, which it is most apt to do when the capsule is distended with fluid.

Sir C. Bell relates an interesting case which occurred in the hospital.

"A woman was admitted with a loose cartilage in the joint. She stated that, 'she began to feel her knee painful, and something move in it, about three years ago.' She said, 'she obtained no rest day or night, and there was no cessation of the pain; she could walk, but she was subject to occasional extraordinary lameness;' and, in short, 'that her suffering was so great that she was willing to undergo any hazard through an operation, with the hopes of relief.' The operation was performed; an incision was made on the inside of the patella; two loose cartilages were withdrawn; severe inflammation very soon followed, with frequent rigors

and constitutional disturbance. All the means for subduing inflammation and pain were had recourse to with every possible attention, but the wound did not adhere; inflammation and suppuration commenced in the joint, and extended to the leg and thigh, very much in the manner we have seen it take place in the cases of accidental wounds. There followed the inflammation and suppuration, that exhausting hectic of which I spoke; then came sloughing on the hip—and what does this sloughing of the integuments of the sacrum imply, if it be not that, owing to the continued suffering and exhaustion, the patient is kept to one posture by the excess of pain? There were no hopes of saving her life, except by amputation; the operation was performed and from that time she began to rally, and she left the hospital quite well."

Sir Charles Bell observes, that the surgeon must go to the operation with fear and trembling. Were it not that there is at present too great a rage for operating, we should almost imagine that an injunction of this kind coming from so high a quarter, must depress the spirits of the young operator, and unnerve his hand when it most required steadiness. But the able lecturer is one whose cautions are dictated by judgement, and who alarms to save.

The following is his method of performing the operation.

"I do not think I could perform the operation neatly, so as to please myself, where there were two cartilages to remove; the reason of which you will perceive if I describe the method. First, you must teach your assistant what he has to do; for the success of the operation is fully as much dependent on the assistant as on the operator. I have a piece of board cut, with a semicircular notch; and by means of this, having got the foreign body on the lateral part of the knee, just on the side of the lower head of the femur, I force it up to the angle where the synovial membrane is reflected. I push the board with the notch firmly against the loose cartilage, holding it, as it were, in a corner at the utmost point of the cavity of the knee. Placing this in the hands of the assistant, he must keep it steadily in that position, for if he does not, the cartilage will escape; and if it escape, misery follows. The next thing that you have to consider is, that you are not to cut directly down, because you have to provide for an oblique wound, that the lips may more certainly heal, and therefore you draw the integuments a little aside; and having done that, you then cut down on the cartilage. I say, then, having drawn the integuments aside, you carry your knife (sharp as a razor) across, very lightly, and cut with a perpendicular edge, taking care to avoid pressure; for if you press on the cartilage, it may escape. At last you see nothing but the cobweb of the proper capsule; you continue to draw the knife over it, and out starts the loose cartilage. But sometimes I have done thus: having made the incision through the integuments, I take a strong and straight couching-needle, and strike it through the thin membrane, direct on the cartilage, and so hold it firm; and then, drawing the knife by the side of the point of the needle, I bring out the cartilage on the point of the needle, which makes a pretty operation. If the body escapes after you have made the incision, and the synovia has come out, and you have to bend the knee to get hold of the cartilage, or if you have to put in a pair of forceps to catch it, or having adroitly brought out one, there is a second, as there was in this case, it is ten chances to one that you cannot remove it with so slight and oblique an incision as I have described; and then all the mischief that I have dwelt upon is too apt to result. You would hardly believe that a cut made with so clean an instrument should produce this mischief, yet the well-informed student knows that it must be so, because, although the operation be done according to rule, and is one of the admitted or regular operations, still it is a penetrating wound; and if adhesion does not follow, misery and suffering result —the loss of the limb or the loss of life."

Sir Charles Bell alludes to a case of rupture of the internal lateral ligament, and, in his characteristic style, he adverts to the frequency of relaxation of this ligament, especially in elderly females. It usually occurs from the individual making a false step, the obliquity of the femur causes the weight to bear on the internal lateral ligament, it is stretched, the obliquity of the thigh-bone is increased, and repetitions of the accident are frequent from this circumstance. At last the patient cannot step at all.

"The obliquity of the bone, and the weakness of the ligament, are such, that she cannot bear her weight upon the limb. If, then, you are sent for to an old lady, and she tells you that coming out of the carriage she sprained her knee, you know that it is most likely the inner ligament which is hurt; and in examining the knee, you put your finger or thumb on that ligament, and ask whether the pain is not there. She replies, 'it is,' and it shews her at once that you are acquainted with the case."

The treatment consists in the removal of inflammation in the first instance, and in the subsequent application of an appropriate mechanical contrivance to support the limb.

II. ERYSIPELAS.

As a pendant to the article on erysipelas founded on the cases of Dr. Macfarlane, we may introduce some observations delivered by Mr. Arnott in a clinical lecture at this hospital. That gentleman relates eight cases, and concludes with an exposé of his opinions.

"I stated to you, gentlemen," says he, "that a difference of opinion still prevailed as to the nature of erysipelas, and of its treatment. Now with regard to the former, let us first consider what has been the character of the phenomena presented to you in the preceding cases. You have seen, then, in all, and in the majority after injury, redness, swelling, heat, and pain of the common integuments, accompanied by more or less of general febrile disturbance. To the local affection you cannot hesitate to apply the name of inflammation. It has, indeed, been said that it is not a pure, a healthy inflammation, and chiefly from the different course it observes from a phlegmon—the essential difference being its great tendency to spread. Now, without alluding to the impropriety of the term *healthy* inflammation being applied to any particular form of the disease, seeing that they are all morbid processes, you will at once perceive that the distinction does not hold good when you carry your observations to other parts of the body. In other membranes as well as the skin, inflammation, when once excited, readily extends. This is the case with the serous membranes, the mucous and synovial membranes, &c.; so that if a distinction is to be established on this ground, the majority of those which we meet with in practice would not rank under the head of healthy inflammations. It has been stated that there must be something peculiar in the inflammation of the skin in erysipelas, as it only occurs in some individuals: no doubt it is so, but there is nothing singular in this. Wounds, and very severe wounds too, of other textures, are not invariably followed by inflammation. In the instance, too, of internal inflammations, as of pleurisy or bronchitis, although many individuals are exposed to the supposed and less manifest causes, only a certain number are affected."

We may venture to hint, that these remarks of Mr. Arnott go to prove that there is no material difference between erysipelas and phlegmon. They tend to establish this, if they tend to shew any thing at all. Mr. Arnott's analogy will, however, admit of some dispute. There is no peculiarity, says he, in the circumstance of erysipelas being a spreading inflammation, because inflammation extends in other tissues, the serous, the mucous, the synovial. But suppose that in those tissues two modes of inflammation were observed—that in one there was a marked disposition for limited action; and in another little or no tendency to limitation—suppose, in short, that those tissues dis-

played, as the skin does, two kinds of inflammation—what would Mr. Arnott say then? We may be told that we beg the question—that we assume the existence of two modes of inflammation in the skin and the cellular tissue. Without arguing this point at any length, we may observe that the phenomena of phlegmon and of erysipelas are in many particulars opposed to each other, and that few practical surgeons will contest the fact. If phlegmon, then, be taken as a standard of inflammatory action, erysipelas is either something else, or differs from it in many important respects. To contend that it is, or is not inflammation, is a war of words, for probably the disputants are not agreed in their definition of the term.

These idle disputes are well calculated to display the futility, or, at all events, the weakness of system. Leaving to the schools such arguments, the practical surgeon observes the phenomena of disease, and endeavours to apply to the conditions he discriminates remedies suited to each. He cares not what erysipelas may be called, but, studying individual cases, he ascertains its laws, and endeavours to control its action.

We will not go over the ground we have already trod, in noticing the cases of Dr. Macfarlane. We need not repeat, nor even enlarge on, the observations we offered with respect to the varieties and the treatment of the disease. We propose, at an early opportunity, to lay before our readers a series of cases, illustrative of the various features of the malady, and calculated to exhibit the influence of treatment. We shall now content ourselves with recording the opinions and experience of Mr. Arnott on the latter subject.

"You would observe, then," says that intelligent surgeon, "that in all the cases which have been related the treatment was essentially antiphlogistic: the patients were, with one exception, placed upon low diet, had aperient medicine and mild antimonials. That, in some, general blood-letting was employed; in others, local; whilst in one-half neither the one or the other was deemed requisite:—the cold local applications were used in most instances; in others, warm fomentations:—that, in only one case, stimulants were tried, and were obliged to be abandoned immediately, from the aggravation of the symptoms which ensued.

In the employment of general blood-letting I am influenced by the condition of the patient, the seat of the affection, and the degree of the constitutional disturbance: where the patient is young and strong,—where the head and face are affected, or where there is considerable fever and a strong pulse,—it is always a question with me, whether I should not take blood from the arm. In one case (the 7th,) a severe one of the head and face, where the patient's pulse did not authorize general blood-letting, leeches were applied to the temples, and repeated with marked relief. Aperients or purgatives are almost invariably useful; and where there is a foul state of stomach, I associate with them calomel or tartarized antimony. Respecting local applications, without making it an absolute rule, I generally order the cold or spirit wash, where erysipelas is the result of local injury. When the inflammation extends over the greater part of a limb, warm fomentations usually prove more agreeable to the patient's feelings than cold ones; and the same is sometimes experienced in erysipelas of the head and face of so called spontaneous origin. You have seen the progress of the inflammation of the skin in one case limited by the application of the nitrate of silver; and in another of phlegmonous erysipelas you have witnessed the decided advantages of incision. It is almost superfluous to observe, that in some cases, neither blood-letting, purgatives, or medicine of any kind, is requisite, but that simply by attention to diet and regimen, the disease will run its course in safety.

I am not unaware that a very contrary plan of treatment is adopted by some, that even to the young and strong wine and bark are given. Upon this I can only remark, that I have only very rarely found them either re-

quisite or beneficial. That I do not entirely prohibit them, you must have noticed; but where they are employed, their effects should be closely watched, or in some cases irremediable mischief will be the consequence.

In conclusion, it may be as well for you to recollect, that in the treatment of the medical erysipelas at least you are rather to have in view the guiding your patient safely through the attack than the cutting of it short; and this object, I believe, you will more securely attain by adopting the general principles of treatment which you have witnessed than by any other."

There are two points on which we may lightly comment. Mr. Arnott states that in only one case were stimulants tried, and that then they occasioned an aggravation of the symptoms. Of course this is a fact, and cannot be disputed. But if we are to draw the inference that such is universally the case in the hospital to which Mr. Arnott belongs, we can only observe that stimulants are often found necessary for erysipelas in other institutions. The other remark we have to make is this. Mr. Arnott states that in the "medical erysipelas," (erysipelas of the head and face independent of injury,) the surgeon should rather have in view the guiding his patient safely through the attack than the cutting it short. And why should he not pursue the same object in treating the surgical erysipelas too? Does Mr. Arnott seriously believe that they are different in nature?

MISCELLANIES.

ST. PANCRAS MEDICAL ASSOCIATION, FOR PROMOTING AND CARRYING INTO EFFECT A SELF-SUPPORTING CHARITABLE AND PAROCHIAL DISPENSARY.

"*By the adoption of which our philanthropy may be reduced to a system, our best class of poor prevented from retrograding into pauperism, and our necessitous and legitimate paupers, separated from the comparatively improvident and vicious.*"

PRINCIPLE AND OBJECT OF THE INSTITUTION.

1st, To place within the reach of the industrious artizan of small income the means of obtaining medical aid, without subjecting him to the necessity of seeking humiliating charity, or destoying his honest pride, by exposing him to the demoralising influence of the poor laws.

2d, To afford gratuitous relief to persons of real desert, who may be unable to procure by their own efforts the advantages above described.

The first-mentioned or FREE CLASS of patients, may obtain for themselves surgical and medical attendance by assuring with the small sum of sixpence per month, which is not equal to the amount frequently wasted by them on nostrums and self-prescriptions. In virtue of this premium they may demand and obtain the most efficient professional assistance and medicines, and to their demands, the number of surgeons ensures immediate attention; thus will be saved the time and labour often fruitlessly, and always painfully bestowed on seeking the signature of a governor of an honorary dispensary; the unfortunate will be spared the bitter degradation of asking charity, for which will be substituted the honorable satisfaction of claiming assistance as a right, and of obtaining it immediately.

The second object of this institution will be attained by the aid of the charitable and humane, who are entreated to be discriminating in the bestowal of their kindness, and thus insure the legitimate application of their bounty to persons whose destitution unhappily

precludes them from the benefits which the industry and self-respect of the First Class (the free members) procure for themselves.

As the sum which will entitle the donor to have a patient constantly under medical care, is only half the amount invariably demanded by honorary dispensaries, those who are anxious to give the most extensive effect to their humanity, will see the advantage of supporting this Institution. The means by which this superiority is obtained over honorary dispensaries are the following:—

The surgeons constituting this Association will dispense their own prescriptions, thus saving the cost of keeping up a dispensary-house and appendages, and salary of dispensing apothecary, a charge equal to at least a third of the whole income of such institutions; in other words, of every guinea subscribed by the humane and excellent supporters of these charities, less than 14s. are appropriated to the literal benefit of the poor. This obvious advantage will enable the St. Pancras Medical Association to allow subscribers of one guinea annually to have two patients constantly on the books, and subscribers of half a guinea, one. For proportionate increase of subscription, corresponding privileges are allowed.

Surgeons.	*Days of Attendance.*
Mr. Malim, 14, Regent square Mr. Cumming, 28, Tavistock-place Mr. Robinson, Seymour-street	Monday and Thursday.
Mr. Fraser, 5, Clarendon Square, Somers Town Mr. Milbanke, Judd St. Mr. Cumming, 28, Tavistock-place	Tuesday and Friday.
Mr. Rhodes, 54, Judd St. Mr. Winter, Tavistock-place Mr. Walford, 39, Speldhurst Street.	Wednesday and Saturday.

Application to be made to any of the surgeons of the day from 10 till 12 o'clock. The surgeon to whom application is made, will continue to attend to the case till its termination.

N.B. Any of the surgeons may be consulted till 11 *o'clock on Sunday.*

EXTRACTS FROM THE LAWS AND REGULATIONS.

18. Surgeons shall prescribe and furnish medicines at their own houses unless the patient be too ill to go out; he shall then be visited by his surgeon at his (the patient's) own house.

19. The free members shall consist of working men, their wives, and children, *and of any other persons who may be unable to provide themselves with medical aid and drugs in the usual manner*; the terms of subscription to be sixpence per month from each member above twelve years of age, and threepence per month from each member under that age.

20. Persons wishing to become free members, must send, or have sent for them, their names, age, and places of abode to any two members of the Association, who shall immediately present the same to the treasurer, and report it to the next committee meeting: any one of the surgeons failing to do this, shall be fined one shilling, to go into the general fund.

21. No free member shall be entitled to relief unless all arrears be paid up; every free member in arrear one month shall be fined 1*d.*, if two months 2*d.*, if three months, 3*d.*; and if a longer period, shall forfeit all benefit derivable from the Association. Each member shall at the time of his entering as a free member sign a paper agreeing to this law.

22. Poor married women, *who are free members*, may be attended in their confinement by any one of the surgeons they may please to select, on paying ten shillings as a fee, with the treasurer two months previous to their confinement.

23. The ten shillings so deposited to be paid by the treasurer to the surgeon who has attended the case, at the next quarterly general meeting succeeding the attendance.

24. All free members shall belong to

the Institution for at least four months before they shall be entitled to the benefits thereof, but any person may become a free member by paying four months' subscription in advance, unless they apply for admission during sickness, then they shall pay twelve months subscription in advance.

25. Donors of ten shillings and sixpence annually, shall be entitled to have one patient always on the sick list; donors of one guinea annually, shall be entitled to have always two patients on the sick list; and for every additional half-guinea, they shall have the privilege in favour of an additional patient.

We have given insertion to the foregoing plan of a self-supporting Dispensary, and it will hardly be supposed that we can have the least wish to impede the operation of any measure calculated to improve the condition of the poor—instil into their minds feelings of independence—or induce the rich to contribute to the support of the indigent. We confess, however, that we entertain some fears that evils will accompany a scheme like the present one. The principle is, as nearly as possible, that of an insurance company, where a small sum is annually paid, to receive back, in case of necessity, (SICKNESS being placed instead of DEATH,) a valuable equivalent. This principle, in general, is praiseworthy; but whether it will apply in the particular instance of medical assistance, is doubtful. In the first place, it looks very like a trading speculation. The medical practitioners offer medicines and attendance to an individual for sixpence per month, taking the chance that the individual may not be ill at all, against that of sickness. There is something INFRA DIG. in this. If the object be mere charity, let the good deed be done gratuitously—if a pecuniary gain be the object, the speculation is objectionable. We acknowledge that the principle of holding out encouragement to the poor to contribute something, while in health, for what may be termed "a sore foot," is excellent; but the clause in the 19th article, which we have underlined, will enable great numbers who are perfectly able to employ the medical practitioner at a reasonable remuneration, to take advantage of this Institution, and procure physic and skill for six shillings per annum!!* We know that, even as it is, great numbers of the class attend as out-patients at hospitals, to save expenses. In the mode here proposed, they can do the thing still more comfortably for themselves, inasmuch as they can demand the *quid pro quo*, without subjecting themselves to the humiliation of seeking eleemosynary aid at a public institution. We submit these reflections to the consideration of our brethren, having no object in view but the respectability of the profession, and the benefit of society at large.

SPINAL DEFORMITIES—MR. UNDERWOOD.

Resolutions.

1st. That this Meeting, being deeply convinced that an immense amount of human suffering and inconvenience originates in the evils connected with, and consequent upon, spinal and limb deformities, do determine to use all their exertions in promoting the success of the charity established by a few benevolent individuals, under the name of *Harrison's Infirmary*.

2d. That the printed report and the copy of laws be approved of by this Meeting, as calculated to render efficient the exertions of the benevolent, in affording relief to the distressed deformed.

3d. That as the funds of the charity are at present insufficient for the accommodation of patients of both sexes, that females only shall in the first instance be received, and that upon the weekly payment of One Guinea, besides as many poor patients as the funds are able to maintain, in a separate part of the building.

4th. That the warmest thanks of this Meeting be given to Her Royal High-

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* Who is to judge whether these "other persons" be able or not to provide themselves with "medical aid and drugs," in the "usual manner!"

ness the Duchess of Kent, for having been graciously pleased to become the Patroness of the Infirmary, and also for her promise of annual support.

5th. That the thanks of this Meeting be given to the President, John Underwood, Esq. for his exertions in the cause of this Charity.

6th. That the thanks of this Meeting be given to Dr. Harrison, for his noble donation of One Thousand Pounds.

7th. That the thanks of this Meeting be given to Drs. Harrison and Serney, and Messrs. Thornber and Hoyland, Esqrs. who have offered their gratuitous medical and surgical aid to the Charity.

8th. That Subscriptions be received by Messrs. Coutts and Co., John Underwood, Esq., and C. W. Hoyland Esq.

N.B. All applications for the admission of patients to be made to the honorary Secretary, C. W. Hoyland, Esq. 15, Blandford Street, Portman Square.

THE CONCOURS.

This subject has been warmly discussed by some of our contemporaries; but we have not yet adverted to it ourselves. It does not seem to have worked well, or at least satisfactorily, in a neighbouring country; and we doubt whether it will ever work at all on this side of the Channel. We think that public trials of strength for appointments to medical institutions should be based on public reputation, and not upon the facilities of answering questions in the minute or recondite branches of medical science. Such a tentamen as this last is the proper one for the student, who has concluded his course of education, and seeks a diploma as a proof of his qualifications to practise his profession. But when a practitioner becomes a candidate for a public institution, his claims should rest on his past labours, and his merits should be weighed by his professional brethren *alone*, because they *alone* are capable of appreciating them. On this account we could wish, though we do not expect, a fair and open election of medical officers by the general constituency of all qualified practitioners. In all elections there will be corruption, or corrupt influence (which is nearly the same thing,) but the broader the constituency, the less opportunity would there be for nepotism and favouritism. The present mode of electing medical officers, through the medium of governors, who can be no judges of the comparative merits of the candidates, is deplorably bad. The public institutions themselves, as well as the public at large, and the medical profession, have often suffered by such a system of election, and will continue to suffer, till a more rational and a fairer mode be adopted. We reiterate our conviction, that the best CONCOURS would be the suffrages of the profession at large by a public election.

MEDICAL REFORM.

Since the Parliamentary Committee on medical inquiry commenced its sittings, medical discussions have almost ceased, and that, too, from intensity of interest, rather than from diminution of excitement. Whoever has had the good or the bad fortune to be in a fleet or an army, on the point of coming into destructive conflict with the enemy, will remember the awful stillness, the deathlike silence, that reigns on both sides of the hostile line. Something of this kind now obtains. The "COLLISION" between the upper and the lower house of physic may be said to have taken place, and both parties stand in breathless expectation or anticipation of the result. Of the *final* result, we have little doubt. As, in general politics, the sun of high tory principles has set forever, so, in medicine, the monopoly of rank and riches, without talent and industry, has seen its acmé, and will experience its decline and fall. This must be the natural course of events—the inevitable consequence of spreading knowledge, whether a parliamentary

inquiry existed or not. The inquiry itself is a consequence of this tide in the stream of time—a tide which no human ingenuity can arrest, or long impede.

MEDICAL REFORM is now taken out of the hands of angry disputants, and of zealous or interested declaimers, and is in a fair way for a liberal adjustment. As far as we can discern, the investigation has gone almost entirely in favour of REFORM. The STATIONARIES, or advocates of things as they are, have made but a very sorry figure in the examinations before the committee. If not a single individual of the "MOUVEMENT" phalanx had been interrogated, the stationaries would have ruined their own cause before any dispassionate tribunal. They broke down in almost every instance. They either admitted the existence of evils and abuses, or endeavoured to veil them with such a flimsy and gossamer covering, that their deformities became more glaring than ever. It would be premature and improper for us to remark on the evidence which has been adduced before the committee. That evidence will form a volume, which we shall analyze with care and comment upon with freedom. We shall probably be able to furnish our readers with much useful and wholesome food for reflection from the parliamentary report.

If we may judge from the tendency of the questions and the nature of the replies, the following will hold a distinguished place in the catalogue of reforms.

First, The establishment of one central board, council, faculty, academy, or whatever else it may be called, for the purpose of regulating the whole of the profession throughout the three kingdoms.

Secondly, Uniformity of education, throughout the three kingdoms, for each grade of the profession.

Thirdly, It seems probable that there will be only two grades in medicine —a higher and a lower, with a proportionate rate of education and acquirements—and without any other impediment to the passing from the lower to the higher grade, than compliance with the terms prescribed for that higher grade.

Fourthly, We think the apprenticeship to the inferior grade will be greatly abbreviated, if not abolished.

Fifthly, The legality of charging for medical attendance will be established beyond cavil or doubt, though it is probable that the practitioner will be left the option of claiming his remuneration through the medium of medicines, of skill, or of both conjoined, according to circumstances.

Sixthly, We apprehend that a far greater amount of preliminary education will be demanded than now obtains, as well as a much longer period of professional study. This will throw back a little the usual age of commencing practice—a consummation devoutly to be wished.

Seventhly, What the amount of power and privilege to be left with the present colleges of physicians and surgeons may be, we cannot conjecture; but we apprehend that the college of apothecaries, in Bridge-street, stands little chance of holding the scales of fate over the general practitioner much longer. Their dominion will probably be transferred to another class of subjects, very useful in their way, but not ranking so high in the science of medicine as of *medicines*.

Lastly, It is not improbable that considerable modifications will be made in the management of public hospitals, and in the mode of appointing medical officers, though we doubt whether Parliament can interfere much with institutions that are chiefly, often wholly supported by private and voluntary subscriptions.

We beg to state that the above are mere conjectures, founded, as we said before, on the tendency of the queries and the nature of the replies in the House of Commons. The alterations and reforms which are here anticipated are those which we *wish*, and, therefore, we may be very much deceived by our own too sanguine hopes. In this case we shall be grieved as well as disappointed. Another year will solve the mystery.

BIBLIOGRAPHICAL RECORD;

OR,

Works received for Review since last Quarter.

1. Medica Sacra; or, Short Expositions of the more important Diseases mentioned in the Sacred Writings. By THOMAS SHAPTER, M.D. Physician to the Exeter Dispensary, &c. Small octavo, pp. 191. Longman and Co. 1834. Price 7s.

2. Observations on the Preservation of Sight, and on the Use, Abuse, and Choice of Spectacles, Reading Glasses, &c. By JOHN HARRISON CURTIS, Esq. Oculist and Aurist. Octavo, pp. 48. Highley, 1834.

☞ *This little work should be in the hands of all young people, and would thus save annually many valuable eyes.*

3. A Letter to Henry Warburton, Esq. M.P. on the Grievances affecting the Medical Profession. By a Junior Practitioner. Octavo, pp. 48. Churchill, March, 1834.

☞ *A very good digest of the ills which press on medical society.*

4. Six Introductory Lectures on the Institutes and Practice of Medicine. By BENJAMIN RUSH, M.D.. Philadelphia, 1801.

5. The Philosophy of the Human Voice, embracing its Physiological History; together with a System of Principles by which Criticism on the Art of Elocution may be rendered intelligible,and Instruction definite and comprehensive, &c. &c. By JAMES RUSH, M.D. Second Edition, enlarged. Philadelphia, 1833.

☞ *This is a very talented and elaborate treatise on the subject which it embraces.*

6. The Physiology,Pathology,and Treatment of Asphyxia; including Suspended Animation in New-born Children, Drowning, Hanging, Wounds of the Chest, &c. &c. By JAMES PHILLIPS KAY, M.D. Octavo, pp. 344. Longman and Co. March, 1834.

7. Suggestions respecting the intended Plan of Medical Reform, &c. By Jos. HENRY GREEN, F.R.S.,F.G.S. &c. Octavo, pp. 49. Highley, 32, Fleet Street. March, 1834.

8. Outlines of the Anatomy and Physiology of the Teeth, &c., their Diseases, and Treatment, &c. By DAVID WEMYS JOBSON, M.R.C.S. &c. Octavo, pp. 268, with plates. Edinb. and London, 1834.

9. Hippopathology; a Systematic Treatise on the Disorders and Lamenesses of the Horse,with their modern and most approved Methods of Cure, &c. &c. By WILLIAM PERCIVAL, M.R.C.S. Veterinary Surgeon in the First Life Guards. Vol 1. Octavo, pp. 331. Longman and Co. 1834.

☞ *Reviewed.*

10. The Principles and Practice of Obstetric Medicine, &c. &c. By Dr. DAVIS. Parts 29, 30, 31, 32. 1834. 2s. each. Malignant Diseases of the Uterus.

11. Encyclopédie des Sciences Medicales, Premiere Division, Anatomie et Physiologie. Premiere, deuxieme et troisieme livraison. Paris, 1834.

☞ *Each livrasion contains about* 130 *or* 140 *pages of close type in double columns. It is to be comprized in* 100 *livraisons, or* 25 *volumes, in monthly numbers, one franc and a half each. The work is remarkably cheap, and is on a novel plan. It is edited with great ability, if we can judge by the first three livraisons.*

12. A Series of Anatomical Plates, in Lithography, &c. &c. By JONES QUAIN, M.D. Fasciculi XI. XII. XIII. & XIV. Division, Muscles. April, May, June, 1834, price two shillings each, folio.

13. Pathological and Surgical Observations on the Diseases of the Joints. By B. C. BRODIE, V.P.R.S. Serjeant-Surgeon to the King, and Surgeon to St. George's Hospital. Third Edition, with Alterations and Additions. Octavo, pp. 344. London, 1834.

14. The Signs, Disorders, and Management of Pregnancy:—the treatment to be adopted during and after Confinement; and the Management and Disorders of Children.

Written expressly for the use of Females. By DOUGLAS FOX, M.R.C.S. and one of the Surgeons to the Derbyshire General Infirmary. Octavo, pp. 206. Derby, April, 1834.

☞ *This work is plainly and delicately written. It is better calculated for the object which it has in view, than any work of the kind with which we are acquainted.*

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15. Essai sur la Leucorrhée et les Causes diverses qui la produisent. Par A. M. REOFREY, M.D. Octavo, pp 161. Prix 3s. 6d. A Londres, chez l'Auteur, Newman Street, J. B. Bailliere, April, 1834.

☞ *This is a sensible little work in which the various causes of leucorrhœa are traced to their sources, with numerous cases in illustration.*

---

16. Hortus Medicus, or Figures and Descriptions of the more important Plants used in Medicine, or possessed of Poisonous Qualities; with their Medical Properties, Chemical Analyses, &c &c. By GEORGE GRAVES, M.D. Fellow of the Royal College of Physicians of Edinburgh, &c. &c. &c. Quarto, pp. 272, with 44 plates and numerous figures. Edinb. & London, 1834.

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17. Sur la Pathogénie et quelques Affections de l'Axe Cerebro-spinal, &c. Choix d'Observations prises dans l'Hôpital du Bourdeaux. Par REY, (M.L.) M.D. Chirurgien chef interne de l'Hopital Saint-Andre de Bourdeaux. Avec une planche. Quarto, pp. 111. Bailliere, Regent Street, 1834. Price three shillings.

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18. The Anatomy of the Human Eye. By JOHN DALRYMPLE, Assistant-Surgeon to the London Ophthalmic Infirmary. 8vo. pp. 294, with plates. Longman and Co. April, 1834.

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19. The Principles of Physiology applied to the Preservation of health, and to the Improvement of Physical and Mental Education. By ANDREW COMBE, M.D. Fellow of the Royal College of Physicians, Edinb. Octavo, pp. 320. Edinburgh and London. May, 1834.

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20. The Principles and Practice of Obstetricy, as at present taught. By JAMES BLUNDELL, M. D. Professor of Obstetricy at Guy's Hospital, &c. &c. &c. Edited by THOMAS CASTLE, M.D. F.L.S. Octavo, pp. 838. Cox and Son. May, 1834.

☞ *This is one of the most valuable works on midwifery that we have yet seen. The talents and experience of the author stamp it with the seal of sterling merit.—We shall notice it analytically in our next.*

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21. The Transactions of the Provincial Medical and Surgical Association. Instituted 1832. Volume the Second. 1834. pp. 346, with plates.

☞ *This volume came to hand too late to be completely noticed in the present number of the Journal; but we shall not fail to make its valuable contents fully known to our readers, in our next.*

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22. A Treatise on epidemic Cholera; illustrating a new Theory of the Disease, on which the Principles of a systematic Mode of Treatment are established. By JACOB VALE ASBURY, M.R.C.S., &c. &c. Octavo, pp. 55.

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23. An Account of Jane C. Rider, the Springfield Somnambulist; the substance of which was delivered as a Lecture before the Springfield Lyceum, Jan. 22d, 1834. By L. W. BELDEN, M. D. Duodecimo, pp. 134.

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24. On the Necessity of Popular Education, as a National Object; with Hints on the Treatment of Criminals, and Observations on Homicidal Insanity. By JAMES SIMPSON, Advocate. Octavo, pp. 402. Edinburgh, 1834.

☞ *We shall notice some parts of this valuable little work in our next.*

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25. An Introductory Lecture to the Practice of Physic, at the Opening of the Eccles Street School of Medicine and Surgery. by W. STOKER, M.D.

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26. A Letter addressed to the Medical Practitioners of Great Britain on the subject of Homœopathy. By the Rev. THOMAS EVEREST, Rector of Wiekar, Gloucestershire. Octavo, stitched, pp. 40. 1834.

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27. An Inquiry into the Nature of Sleep and Death, with a View to ascertain the more immediate Causes of Death, and the better Regulation of the Means of obviating them. (Re-published from the Philosophical Transactions.) By A. P. W. PHILIP, M.D. F.R.S. Octavo, pp. 254. 1834.

EXTRA-LIMITES.

To the Editor of the Medico-chirurgical Review.

Sir, The objects of my Essay on the Secondary Effects of Inflammation of the Veins were, an attempt on the one hand, to shew how death was produced in this disease, and on the other, in what way abscesses originate in distant parts after injuries. The conclusions to which I came were these. I demonstrated that death does not take place from the inflammation of the vein extending to the heart;—I shewed that facts and reasoning tended to establish the conclusion, that the principal cause of the alarming consequences arose from the entrance of pus into the circulation, a similar influence being perhaps also possessed by any inflammatory secretion from the vein; and, finally, I adduced a number of facts, which led me to conclude that the inflammations and abscesses which arise in distant parts after injuries and after parturition, were attributable to the existence of phlebitis in the part of the body primarily affected.

In the last number of your Journal, Dr. Wise pretends that, in some remarks appended to a report of cases of phlebitis treated at St. Bartholomew's Hospital, printed and intended by him for publication in the Medical and Physical Journal for 1827, but withdrawn, proofs will be found of a *resemblance* between his opinions and mine on the subject of phlebitis.

I have referred to the Report alluded to, and which is in your possession. There are no opinions therein expressed resembling mine. The question of the extension or not of the inflammation of the vein to the heart is not considered, much less decided; the entrance of pus or other inflammatory secretion into the circulation is not mentioned; and the occurrence of inflammations and abscesses in distant parts after injuries and after parturition, is neither broached, nor an explanation attempted to be given. Indeed Sir, in that report, no conclusions are drawn—no opinion is expressed as to the primary question of all, the cause of the constitutional affection in phlebitis, and when it is stated that they (the effects) follow "*either* from the structure or the function of the part inflamed," the writer (Dr. Wise) shews that he had formed no opinion, and as regards him, the question is left precisely as it had been by Mr. Hunter, who stated that death took place "*either* from the extension of the inflammation to the heart, or from the entrance of pus into the circulation." And yet this gentleman, Dr. Wise, now talks of having pointed out the cases of phlebitis which occurred at St. Bartholomew's Hospital to the attendants there, as "proofs of the justness of conclusions at which he had previously arrived,"—conclusions which he does not describe, (not even in his two communications to you,) which no one seems to have heard of but himself, and which are not to be found in the report to which he now refers.

Pleuritis as an effect of phlebitis is alluded to in the remarks accompanying the Report, but purulent deposi ions, affections of the joints, and of the eye, are not mentioned; and and as regards pleuritis, no endeavour to account for it is made, so that an opportunity is not afforded of ascertaining, if Dr. Wise had any opinion upon the subject, whether they were not identically the same with those recently promulgated in a country where he had been residing, by M. Velpeau, in his "Memoire sur la Pleurisie a la suite des grandes Opérations Chirurgicales, ou d'un Suppuration plus ou moins abondante."—*Revue Médicale*, 1826.

Unable to support his very general and very vague charge of "appropriation" by any specific or tangible proof, Dr. Wise, in his inability to make out a crime of commission, seeks to help himself by alleging one of omission in the following sentence:—"He, (Mr. Arnott,) was obliged to leave out the peculiar changes in the blood, which *is* so remarkable a consequence, from being aware I had published a note in the Medical and Physical Journal for the year 1827." Now whatever might be my reason for not noticing this change, it certainly was not because Dr. Wise had published "a note"—the change in question had been previously far better described by M. Ribes. "The note" is entitled "Remarks on some of the Phenomena of Inflammation, as they appear on Dissection;" the subject is the proximate cause of Inflammation, in which a principal part is given to the capillary veins. When a vein inflames after bleeding, it is "plugged up by consolidated blood some distance above and below the wounded part." "Such a consolidation of blood appears to be a constant effect of a certain degree of inflammation in the branches of veins; and, as the structure and contents of these vessels seem to be the same, may I not be allowed to infer that the same cause will produce the same effect, and that, there-

fore, a like consolidation of blood takes place in the capillary veins?" Such is Dr. Wise's language. Now let us turn to what was written and published two years previously in a paper entitled, "Exposé succinct des Recherches faites sur la Phlébite, par M. F. Ribes, Révue Médicale, 1825." After stating that in one stage or degree of inflammation the vein may be lined by a false membrane, or that it may be filled with pus, he proceeds "mais quelquefois la veine légèrement enflammée se laisse dilater et distendu par le sang. Ce vaisseau etant malade, ne peut que difficilement, reagir sur le fluide qu'il contient, le sang y stagne, s'y arrete, s'y coagule, se durcit, se dissêche, adhère fortiment et fait, corps avec la veine, alors la membre est plus en moins enflée." P. 11. And two pages farther on, M. Ribes endeavours to shew that the veins are inflamed in erysipelas, which he represents to be essentially seated in the capillary veins. And yet Dr. Wise talks of plagiarism!

From the expression "changes in the blood," although one only is described, but more especially from the tone of his two communications to you, one would almost be disposed, Sir, to infer, that Dr. Wise had other pretensions in view as well as the foregoing, and that he desired it to be supposed that the pathology of the blood equally with inflammation of veins had not previously attracted attention, and was exclusively his own. Besides the paper by M. Velpeau already alluded to, did Dr. Wise never hear of another paper referred to by me in my Essay, and likewise published two years before his note and report? I mean that by M. Bouillaud, "Recherches Cliniques pour servir a l'Historie de la Phlébite, *Revue Médicale*, 1825;" and who, in ascribing the typhoid symptoms in phlebitis to the presence of pus in the system, refers to the experiments of Baglivi, Majendie, and Gaspard, as having produced apparently analogous effects in animals by the injection of acrid and putrid matter into their veins? And does Dr. Wise think that we, living in England, were ignorant of M. Velpeau's "Recherches et observations sur l'altération du sang dans les Maladies, *Revue Médicale*, 1826," and the experiments of M. M. Trousseau, Dupuy, and others?

Dr. Wise states that I suggested to him the publication of a report of the cases of phlebitis, which occurred at St. Bartholomew's Hospital, and that I corrected one if not two of the proof sheets. It would be difficult to correct one sheet even of a report which does not consist of nine pages, but I recollect looking over some part of it at his request, which I presume was made because I had suggested to him as house-surgeon, that an account should be drawn up and published;—(the cases had not then been any where reported.) Neither circumstance however would seem to indicate a disposition on my part to do Dr. Wise a disservice, but directly the reverse; and if this publication of the cases was to give him a pretence to claim opinions which he had not formed, or conclusions which he had not drawn, as well might the Editor of the Lancet, in which they (the cases) subsequently appeared—the late Mr. Rose, of whose paper on depositions of pus and lymph the same cases formed a part—or Mr. Lawrence, in whose practice they occurred, and who communicated them to Mr. Rose, have come forward after the publication of my Essay, and sought to arrogate to themselves the views which I had taken of the cause of the constitutional affection in phlebitis, and of inflammations and abscesses in remote situations after injuries and after parturition.

Dr. Wise states that a very few months after he left England, I presented my Essay to the Medico-Chirurgical Society. The point is of no consequence, but it shows the *animus* and something more. That gentleman left England in June or July, 1827, my Essay was presented to the Society in October, 1828, and had the reading of it been deferred a couple of months, M. Dance would in all probability, and with as much justice as myself, have had to sustain a charge of plagiarism, for in the Archives Générales de Médécine of December, 1828, the first part of that gentleman's paper on uterine phlebitis appeared, in which he expresses opinions almost identical with my own.

In conclusion, Sir, I have to repeat what I formely asserted, that my views on the subject of phlebitis originated in personal observation of the extraordinary circumstances of the cases I witnessed—not in the suggestions of any one: that the general results and conclusions at which I arrived were formed after a long and laborious investigation of a very extensive subject, and that whatever they may possess of merit or demerit belongs to myself. As regards Dr. Wise, I repeat that I did not derive any materials, facts, or opinions from him—that I never saw a dissection by him of a patient who died from phlebitis, nor do I know what were his opinions thereon, and even now that I have had the advantage of reading his two communications to you I cannot discover what they are.

I have the honor to be, Sir,

Your obedient servant,

London, May, 1834. *JAMES M. ARNOTT.*

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No. XLII. OCTOBER 1, 1834.

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INTELLIGENCE, CORRESPONDENCE, &c.

Reviews or notices of several works have been unavoidably postponed. Amongst others, the Provincial Transactions, and Mr. Simpson upon Education, which were promised for this number, must stand over for our next.

Two of the communications of Dr. Kennedy were too late. One, he will perceive, is inserted.

Dr. Forsayth was also too late for the present number. His case will appear in our next.

We are compelled to defer a notice of Mr. Stevenson's operation for cataract. We lately had the pleasure of seeing him perform it:—the dexterity was great, and we believe the result has been successful.

On the first of January, 1835, will be published *Professor Grant's Outlines of Comparative Anatomy, in one volume*, 8vo. with upwards one hundred woodcuts from drawings on wood by Mr. H. J. Townsend, engraved by Branston.

THE

Medico-Chirurgical Review,

No. XLII.

[NO. 2 OF A DECENNIAL SERIES.]

JULY 1, TO OCTOBER 1, 1834.

LECONS ORALES DE CLINIQUE CHIRURGICALE, FAITES A L'HOTEL DIEU DE PARIS. Par *M. le Baron Dupuytren*, Chirurgien en Chef. Recueillies et publiées par une Societé de Médecins. Tomes 2 et 3:—à Paris, 1832, 1833.

[Continued from page 91, of No. 37.]

IT is not, perhaps, necessary to enter into the reasons, which have occasioned the long interval between the former and the present notice of M. Dupuytren's lectures. These lectures have formed a staple article with our contemporaries, at least, with that portion of them whose visits are *not* few and far between; we mean the weekly journals. Yet these journals have presented them at such lengthened intervals, that the chain of connexion and interest is broken, and they resemble scattered and insulated pearls, rather than a close and well-arranged tissue, valuable in its construction as well as its material.

We would recommend all whose education enables them to understand the French language, and whose means permit them to purchase the volumes containing the lectures, not to rest contented with mere translations. We have no hesitation in expressing our opinion, that the Leçons Orales will become a standard work, and will be found in the libraries of all accomplished surgeons. But we cannot acquiesce in the extravagant eulogy which some of our contemporaries have heaped upon it, nor do we feel constrained or inclined to admit, that it throws into the shade the efforts of modern English surgeons.

A candid and rational consideration will lead, we apprehend, to a more moderate appreciation of its merits. It will probably be perceived to display the peculiar excellencies and defects of the present style of surgical works in France. There will be seen the abundance of all that is deducible from anatomy and pathology—the accurate description—and, in general, the just diagnosis; but there will be also seen the absence of that acquaintance with the powers of remedies, and the want of that decision and judgment in their application, which honourably distinguish the British school of Medicine.

A critical examination will discover, in many instances, another fault—one almost peculiar to the French nation. It is a fickleness and inconstancy in reasoning, as in character—a levity which has marked the disposition of the Gaul from the days when Cæsar first conquered and studied the

aboriginal tribes. The French medical or surgical writer of the present day, always talks of a rigorous attention to facts, and inculcates the necessity of absolute induction; yet, in some way or other, it usually happens that his conclusions exhibit the powers of his imagination, rather than the strength and sobriety of his judgment. French works are too often insufferably diffuse, the language and the taste encouraging the "copia fandi." The tired reader struggles through innumerable pages, where the verbiage surrounds him like the tall thick grass of an Indian prairie, concealing the prospect, and almost obscuring the sky.

We cannot be accused of a wish to depreciate continental literature or foreign science. Few have laboured with more zeal or more anxiety to diffuse an acquaintance with both among our brethren. But we trust we are possessed of sufficient patriotism to award justice to our native land, and to claim for her the respect and the praise which are her due. It appears to us ridiculous to assert that English surgeons are below the level of their brethren on the Continent. We would wish to be informed what modern French or German works can be ranked above that of Mr. Brodie on the joints—or can be deemed superior to those of Sir Astley Cooper on fractures and dislocations, and on diseases of the testis? If there be such, we confess that we are unacquainted with them.

The memoirs and the lectures of M. Dupuytren display a smaller share of the defects, and a more preponderating amount of the merits of the French school of surgery, than those of his contemporaries. His mind is cast in the English mould, or, rather, his observation and his vast experience have contributed to diminish that fanciful spirit which distinguishes the great majority of his countrymen. In perusing his observations, we feel that we are holding converse with a practical man, and we do not appear to be regarding the declamatory candidate for the Concours.

Our former notice of the second volume of the Leçons Orales was carried to the last article contained in it—one devoted to the subject of gun-shot wounds.

The third volume of M. Dupuytren's lectures contains eighteen articles—the fourth exhibits fifteen more. The latter forms the completion of the work. We have recommended all who can readily read and translate the French language, to purchase the volumes in their native form. But possibly many are insufficiently acquainted with that language, and probably more can ill afford the sum* to which the work amounts. We think then we shall be doing an acceptable service to our readers, in presenting, in as connected and condensed a manner as our limits and the subjects will permit, an analysis of the two concluding volumes, and of the article on gun-shot wounds in the second.

The émeutes of Paris have given the surgeons of that peaceable capital considerable opportunities of observing the accidents of war. The works of Dr. Hennen and of Mr. Guthrie, familiar as they are to the profession, and embodying as they do the whole of what is known on the injuries of which they treat, will render a copious and particular notice of the Baron's obser-

* The price of the four volumes is one pound, eight shillings, and four-pence.

vations superfluous. We shall limit this portion of our task to selection of what may be novel, curious, or important.

On Gun-shot Wounds.

This article occupies two hundred pages of the work. M. Dupuytren commences with some general observations on the effects of fire-arms, and remarks that they depend on two principal circumstances:—the nature of the charge, and the distance at which the piece is fired. Without following M. Dupuytren through his remarks on the action of the different varieties of fire-arms, and his exposition of the laws which regulate the course and the arrest of balls, we may glance at one or two particulars.

If a piece is charged with powder but no wadding, the explosion is inconsiderable, yet sufficient to contuse the skin severely, when the charge is received at a short distance. But if wadding is employed, the injury which it produces is determined by the quantum of resistance, and the situation of the body struck. A case of this description occurred to M. Dupuytren. Two individuals quarrelled, and one in the heat of passion discharged his gun, which was loaded with powder only, into the abdomen of the other, who immediately fell dead. The piece had been discharged at the distance of a foot or two. On examining the deceased, the clothes were found torn—the anterior wall of the abdomen penetrated by a hole of more than an inch in diameter—the intestine wounded—and the wadding of the piece in the cavity of the belly.

Suicides frequently forget to load the pistol with ball. The parieties of the mouth are violently distended by the rarefaction of the air. Sometimes the wadding traverses the palatine vault. If the direction of the fire is backwards, the vertebral column offers effectual resistance, but the soft palate is torn, and sometimes the inferior maxillary bone is broken.

Small shot of different dimensions operates in two manners—that is, it strikes *en masse*, or after it has spread. In the former case, its action is more dangerous than that of a single ball, because it lacerates extensively the parts into which it is impelled; but where it has spread, the discharge must, of course, have been remote, and comparatively little mischief is inflicted. Much, however, must depend on the part which is injured. If the eye be struck with a single grain of shot, it is irretrievably lost.

Passing over some pages of familiar remark, we may pause to listen to the observations of the Baron on the action of clothing in modifying the effect of balls, and on the injury produced by what has been termed their *wind*. Articles of dress, especially when wollen, protect in some degree the parts they cover. The hole made by a ball in clothes is always smaller than that in the skin. The ball often enters a limb to a considerable depth, without occasioning any perforation in the dress, which is, consequently, carried before it. In 1814, a French soldier, who was wounded before the walls of Paris, was carried to the Hôtel Dieu. On examining the upper portion of the leg, some pieces of cloth were found buried in the bone. On pulling at these with some force, a kind of wadding was extracted, containing a ball inclosed in a part of the soldier's gaiter. Amongst the wounded received at La Pitié, in July 1830, was a patient who presented a nearly similar occurrence. A ball had entered the abdomen, carrying before it a

part of the shirt, by means of which the bullet was extracted; the patient recovered. The difference of size between the wound in the clothing and that in the skin, depends on their respective elasticity. The circumstance should be remembered, as an unacquaintance with it gave rise to the idea that Charles XII. of Sweden was assasinated. The ball had pierced the border of the monarch's hat, and entered the anterior part of the cranium, the opening in which was much larger than that in the hat.

The notion of serious injury from the wind of the ball arises from the difference of elastic resistance in various tissues of the body. If a projectile, nearly spent, or at least much diminished in force, strikes obliquely on a rounded surface, like the thigh, it may pursue its course, without leaving any mark upon the trowser of the wounded man. The limb which has been struck is rendered numb and powerless, and the person falls. On examining the thigh the bone is discovered to be broken, the soft parts disorganized, and the skin apparently uninjured. The fact would seem to be, that the muscles, at the time when the limb is struck, are in a state of tension, and yield to the violence more readily than the elastic skin. If, instead of a limb, the chest should be the striken part, instantaneous death may be the consequence, and a careful examination may be necessary to disclose its cause.

One ball may inflict several wounds, in consequence of its impinging on some hard substance at first, and being thereby broken into two or more portions. Thus a ball struck the lower part of the spine of the tibia in the right leg, and was divided by it into two pieces. Each, diverging a little, passed through the calf, and lodged in the fleshy part of the left leg, which happened to be placed behind the other.

The observations of the Baron on the lodgment of balls, and on their travelling propensities, are deserving of attention.

When a ball is lodged in any organ or tissue, it either excites inflammation and suppuration, or it does not. If none is occasioned, a cyst is formed, attached on its exterior to the surrounding tissue, and resembling on its internal surface a serous membrane; thus the ball is enclosed in a serous cyst. This is a fact of practical importance, for, in performing an operation for the extraction of a ball, if the cyst is left behind, an accumulation of serum in its cavity ensues, and an encysted tumor is the consequence. In removing the ball, the cyst must either be dissected out, or it must be dressed in the interior with lint, in order to produce suppuration and granulation. If inflammation is excited by the ball, the cyst, instead of secreting serum, gives rise to pus, and ultimately fistulous sinuses are formed, connecting the interior of the cyst with some internal cavity, or with the surface of the body.

When balls travel, their progress may be rapid or slow. If the former, they leave no traces of their passage in the organs which they traverse. If the latter, they are surrounded by the serous apparatus just described. Bodies of all forms may shift their quarters in the body, though such as are narrow and pointed will do so with more ease than those which are spherical and obtuse. M. Dupuytren cautions the surgeon to be satisfied of the situation of the foreign body at the time when he performs the operation. If he cuts in a direction where he may have felt it the preceding day, it is possible that it may have removed in the interim. Balls usually travel from

the interior towards the surface, but sometimes they pursue the contrary route.

We may pause for a few moments at the Baron's description of the injuries inflicted by balls upon the bones. Sometimes, merely a contusion is produced; but this is more serious than it seems, for the periosteum is destroyed, or inflames, and necrosis may ensue. That the bones should be fractured in various ways, and shattered in various degrees, can scarcely be productive of surprise. But it might not be anticipated that the resistance of bone would be sufficient to break or divide a ball. When the latter impinges on an angle of bone, such is occasionally the fact. A ball which struck the spine of the tibia has been separated into two portions, which, traversing the leg, made their exit at separate apertures behind. A nearly similar division has been witnessed, in cases of injury of the flat bones. A Swiss soldier was wounded by a ball, which fractured the right parietal bone, and was divided into two; one portion made its escape through the integuments, whilst the other penetrated the brain, and lodged on the tentorium cerebelli. At the same period, there was in the Hôtel Dieu a patient in whom a ball, having broken the occipital bone, was split into two portions, which still remained slightly united, and were arrested at the opening, over which they were placed, as it were, astraddle.

M. Dupuytren relates a case, in order to shew how difficult it sometimes is to determine if a ball has entirely escaped, or has partially lodged. A Parisian was wounded by a ball, which penetrated above the clavicle, and made its exit behind, near the inferior angle of the scapula. The ball presented no other peculiarity than that of being rather flattened on one facet. The patient appeared to be cured, but, on examining him some time afterwards, a hard substance was felt near the posterior wound. An incision was made on it, and a portion of ball was removed. On weighing this, with what seemed the entire ball, the compound weight was found to be that of an ordinary bullet.

M. Dupuytren relates some cases to exhibit the extraordinary course of balls. So many have been recorded by Dr. Hennen, Mr. Guthrie, and other surgical writers, that we do not think it necessary to pursue the subject.

The Baron has little to say, or at least he says but little, on that serious affection denominated, perhaps not quite correctly, hospital gangrene. He states that in 1814, when the Hôtel Dieu was extremely crowded, many cases of this description occurred; but that, in 1830, when the wards were not too full, and the arrangements were improved, few instances were met with. Contused wounds are those which are most frequently affected with this species of gangrene, and, in 1830, the hands and the feet were the parts in which it commonly appeared.

The compound fractures produced by gun-shot are usually dangerous and severe. We perceive no novelty in M. Dupuytren's description of the immediate consequences of injuries of this description. We may cite one remark, on the period at which secondary hæmorrhage; from the pressure of a fragment of bone, is observed. It is usually late, and subsequent to that at which bleeding from the separation of sloughs is noticed. M. Pelletan saw a case, in which the hæmorrhage occurried on the 70th day.

We may rest for a moment to listen to the lecturer's description of the different conditions which fragments or splinters of fractured bones may ex-

hibit in a limb. He arranges them methodically into primary, secondary and tertiary splinters. The primary splinters are those which result from the operation of the wounding agent. When left to themselves, they die, and operate like foreign bodies, giving rise to extensive suppuration, or to troublesome sinuses. The second order of splinters are such as preserve some adhesions to the parts with which the bones are naturally connected. These adhesions may be insufficient to preserve their vitality, when they fall into the condition of the primary splinters; or the life of the fragments may continue, and they then contribute to the formation of the callus. The third kind of splinters are such as result from the process of necrosis. They remain in their place till that process is so far completed, as to cause or to facilitate their expulsion. The broken ends of the bone are not, in the mean time, united; but consolidation is going on around in the periosteum, the cellular texture, and the other soft parts, and a bony clasp or ferule is formed, supporting, and so far joining, the fractured bone. If the splinters are too large to be expelled, they are locked up, like sequestra, in this new bone or callus, and fistulous sinuses connect them with the exterior, as in ordinary cases of necrosis. To remove them, it is necessary to apply the trephine, and perforate the fresh bony matter.*

M. Dupuytren observes that, among the severe consequences or complications of gun-shot wounds, hæmorrhage, especially of a secondary character, tetanus, collapse, ersipelas, diffuse phlegmon, and inflammations of internal organs, must occupy the foremost rank.

Few remarks on those subjects will be necessary, the attention of the profession in this country having either been lately or sufficiently attracted to them. We may notice the Baron's observations upon hæmorrhage.

It is known that gun-shot, like all contused, wounds are little disposed to bleed in the first instance. Patients, however, occasionally die from immediate hæmorrhage, an example of which, in a case of gun-shot wound of the femoral artery, is related by the Baron. Secondary hæmorrhage is much more common, and occurs under two conditions of the artery—when it has been totally divided, or when it has been only partially wounded. In the first case, the eschar produced by the immediate action of the ball, and the coagulum which forms at the orifice of the vessel, seal and prevent the occurrence of hæmorrhage. Accidental causes may increase the circulation, when the clot and the eschar may prove insufficient to prevent the flow of blood. But, in other instances, the bleeding is delayed till the process of suppuration has separated the sloughs, which is usually from the tenth to the twentieth day. Hæmorrhage, in these cases, is seldom preceded by any distinctive circumstances or signs, excepting, perhaps, a sero-sanguinolent discharge, which sometimes issues from the wound. In primary hæmorrhage, the vessel must be tied at the spot where it bleeds; in secondary hæmorrhage, it must be secured, in sound parts, between this and the heart.

M. Dupuytren has seen secondary hæmorrhage from vessels of small, as

* For the reader to appreciate, to the full extent, the preceding observations and description, it is necessary that he should be familar with M. Dupuytren's description of the process by which fractured bones are united; and with the value of the application of the trephine in cases of necrosis.—EDS.

well as large calibre. An officer in the wards of the Hôtel Dieu had such hæmorrhage from the wound of a branch of the temporal artery. Compression proving ineffectual, M. Dupuytren cut down, and tied the vessel on a roll of diachylon

Varicose aneurism, or rather aneurismal varyx, is sometimes a result of gun-shot wounds.* M. Dupuytren has witnessed an instance of this sort in the shoulder—and in the case of the subclavian artery and vein. He has also observed it follow the reception of a charge of small shot. An appraiser who was wounded in this manner in the hypogastrium, thighs, and genital organs, discovered, at the end of five or six months, a whizzing in the thigh. This could be distinctly heard on the application of the ear, and resembled that produced by the passage of the blood from a large artery into a vein. When pressure was made above the part, it ceased—when applied below, it was increased. A bandage was constructed, and the patient has since enjoyed good health. In his remarks upon the treatment, M. Dupuytren would seem to recommend a practice, which most practical surgeons in this country tacitly or openly condemn. He observes that pressure is always inconvenient, generally insupportable, and seldom advantageous. Ligature of the artery, above the disease, may answer in a recent, but is always unsuccessful in an old case. He, therefore, advises that a ligature should be placed upon the vessel above and below the seat of the disease. The practice in this country is to do but little. If moderate compression can be borne without difficulty, it is reasonable to employ it. If it cannot be supported, and the complaint is not productive of excessive inconvenience, it is not worth the while of the surgeon to perform, nor of the patient to submit to, any operation. But, if the affection should prove troublesome or dangerous, we suppose that the advice of M. Dupuytren may be taken, and a ligature may be applied upon the artery, above and below the communication with the vein.

We may cast a furtive glance at an interesting subject approached by M. Dupuytren—it is the influence of mental emotions, or of moral agencies, upon the wounded. It has long been remarked that, after a battle, the wounds of the victors have usually done better than those of the vanquished. In civil conflicts, the fact is still more striking. During "the three days," the mortality amongst the triumphant citizens was comparatively much less than that of the beaten military. The reverse was observed in the unfortunate émeutes of June, 1832. The young soldier generally suffers more severely than the veteran—his friends, his home, his family crowd upon his mind, and, under the anguish or the terror of his wound, he bids an eternal farewell to all. The veteran, on the other hand, is more affected and depressed by the loss of a battle or campaign. The effects of sudden and passing emotions are equally conspicuous. A young man, who was doing well with a fracture of the leg, was informed one evening, by his landlord, that, unless his rent was paid, his goods must be seized and sold. On the next day, he was found labouring under severe fever and great nervous excite-

* The varicose aneurism is that condition, in which an aneurismal sac intervenes between the artery and vein, with both of which it communicates by an opening in either. The aneurismal varyx is a communication between the artery and vein, without any intermediate sac.—Eds.

ment. A workman, slightly wounded in the hand, died rapidly with nervous symptoms, in consequence of the impression produced upon his mind, by his leaving unprovided a girl he was about to marry. Several of the wounded, in 1832, died in a few hours, on being told that, after their recovery, they would be tried by a court-martial. M. Dupuytren denounces, in terms of strong but just indignation, the atrocious improvement in tyranny adopted by the Government of the barricades. That Government was not ashamed to resort to a barbarous meanness, which the lofty and more noble despotisms of the reign of terror, the consulate, the empire, and the restoration had never condescended to imagine.* Louis Philippe surrounded the hospitals with a military force, and, as the medical public are aware, actually dared to command the surgeons to become the official delators of their patients. That they refused, is no more than might be expected from a liberal and humane profession. The terror inspired by the proceeding and the attempt, had the melancholy effect, which no doubt was intended, of destroying many of the unhappy sufferers.

The Baron next describes the effects of gun-shot wounds on particular portions of the body. He commences with wounds of the head. We are almost induced to notice his remarks on erysipelas, and on diffuse phlegmon of the scalp. The latter is really diffuse inflammation of the cellular membrane beneath the aponeurosis of the occipito-frontalis. It is common after scalp-wounds of every description—frequently mistaken by practitioners for erysipelas—and, when mistaken, fatal. The safety of the patient depends on the employment of incisions.† We believe we must "move on," and we scarcely dare halt at the distinctive symptoms of concussion and compression. Yet they are brief, and may be noticed.

In concussion of the brain, says M. Dupuytren, the patient lies tranquilly —the face is pale—the lids are closed by the depression of the upper—the pupils are much dilated—the respiration so subdued as barely to indicate existence—the beat of the heart and of the pulse scarcely felt.

In compression, the patient is usually restless—the face is purplish—the pupil is contracted—the breathing difficult, the chest being seemingly loaded with mucus—there is stertor, and the pulse is frequent, full, and hard.

We cannot entirely agree with the Baron in this enumeration of respective symptoms. We have not found, and we do not believe, that the pupil is dilated in cases of concussion, and contracted in those of compression; the varieties are too great to warrant the positive antithesis. Neither is the face always turgid or reddened in compression; we have seen it absolutely pallid. The pulse, in the latter, is not always full, frequent and hard; on the contrary, it is not uncommonly labouring and slow. An allusion to partial or general paralysis might usefully have entered into the description of compression.

M. Dupuytren offers some lengthened remarks on the subject of contusion of the brain. The majority of surgeons and of surgical writers have considered only concussion, compression, and subsequent inflammation. In des-

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* "Dont la pensée meme n'etait jamais venue," &c.

† In a report from St. George's Hospital, published in this Journal some three or four years ago, the subject was illustrated by several cases.

cribing contusion, M. Dupuytren has attempted, though without great success, to discriminate the symptoms that distingush concussion and contusion. We are anxious not to dedicate much space to the lectures upon gun-shot wounds. We, therefore, waive the consideration of this question, and merely stop to notice a case related by the lecturer, in illustration of the following remark:—That if contusion affects only one lobe of the brain, three or four days in general elapse before unpleasant symptoms occur.

Case. A young man, 15 years of age, received a violent blow upon the head, which produced a wound, and loss of substance in the bones. For three days he was able to get up, and to walk freely in the ward. On the fourth day symptoms of contusion supervened, and in three days more the patient died. Half of the brain was found disorganized.

We could wish that the Baron had been more explicit in describing the mode of disorganization. At present, we are ignorant if the alteration was such as a blow might have occasioned, or rather the effect of inflammatory action. By the way, we may express a hope that it is not the common practice in the Hôtel Dieu, to allow a patient with a wound of the scalp, and a loss of bone, to walk about the wards immediately after the reception of the injury. If such is the method of treatment adopted, we should think that the Baron must have many opportunities of investigating the morbid changes produced by inflammation of the brain.

Wounds of the face are, in general, not productive of fatal consequences. Yet, occasionally, the secondary effects are very serious. One of the wounded of July had both jaws almost entirely carried away by case-shot. He sank under cerebral symptoms. Many citizens had the lower jaw broken by balls; some were cured—others died from repeated hæmorrhages—and others from inflammation, established in the brain or in the chest. An unfortunate effect of these wounds is the profuse and fetid suppuration, which, mingling with the saliva, is carried with it and the food into the stomach, and contaminates the whole economy.

Rupture of the membrana tympani is a frequent effect of the commotion produced by the discharge of artillery. Sometimes this occasions deafness —sometimes only dulness of hearing.

Balls sometimes lodge in the maxillary sinus, where they are felt by the patient moving about. In 1814, a lieutenant-colonel had had the masseter muscle and parotid gland destroyed by a ball, which had entered the sinus. Excessive swelling supervened; and when this had become diminished, the right nostril remained obstructed, and the sinus the seat of pain. These symptoms were supposed to depend on the presence of fragments of bone. Some were actually removed by operation; but a probe then detected the presence of a ball, which was removed by making an opening into the sinus, between the cheek and the alveolar process.

In wounds of the anterior part of the throat, whether suicidal or otherwise, M. Dupuytren has for some time adopted the use of sutures. He is careful, however, to leave a space, through which either blood or pus may issue.

M. Dupuytren's remarks on gun-shot injuries of the shoulder, or rather of the scapulo-humeral region, are perspicuous, instructive, and characteristic of his style. It is only necessary to particularize one point. When

the head of the humerus is shattered, amputation at the shoulder-joint is usually required. Yet, in many instances the operation of cutting down upon the bone, and removing merely the broken portions, is sufficient to preserve the limb and the life. This is, in fact, the application of the operation of excision of the heads of bones to the case of injury by gun-shot. The operation, in the instance of the shoulder-joint, may be performed by means of a simple incision through the deltoid, or by making a flap of that muscle.

Two facts, in reference to gun-shot wounds of the arm, are briefly mentioned by M. Dupuytren. Of course he indulges in other observations, to which we do not deem it necessary to allude. The facts in question are these.

1. A man received a gun-shot wound on the anterior part of the arm, at its upper and internal part. No nerve would seem to have been injured—at least no paralysis occurred; but a frightful hæmorrhage succeeded, and was only arrested by a ligature.* From that time forwards, no pulsation could be felt in the brachial, the radial, or the ulnar arteries. Those vessels were distinguished filled with blood, but without any pulsatory impulse. It is probable that, in this case, the brachial artery was wounded; but, although the circulation was maintained by the anastomosing branches, it was not sufficiently vigorous to transmit pulsation.

2. The question of re-union of divided nerves occupies the attention of the lecturer. He abstains from the expression of opinion, and leans on the statement of a fact. In two instances, the radial nerve was divided by a cutting instrument. Sensibility and motion returned in the parts supplied by it at the expiration of two years. The reader may turn, with some advantage, to the experiments and the remarks of Mr. Swan.†

In describing wounds of the chest and abdomen, M. Dupuytren alludes to the occurrence of great destruction of the viscera contained within these cavities, although their parietes display no lesion. He relates a case of such contusion of the viscera of the abdomen which occurred in a soldier, wounded in 1814 beneath the walls of Paris. A cannon-ball struck the left flank obliquely, but produced no external wound. The patient, who was carried to the ambulance at Veltette, was rallied by his comrades on his quitting the field of battle. The integuments of the abdomen became discoloured and dark—insensibility and immobility of the left lower extremity succeeded—vomiting, hæmaturia, and dyspnœa followed—and stupor closed the scene. On examination after death, the subcutaneous cellular tissue, the sacro-lumbalis muscle, the parietes of the abdomen, and the left kidney, were reduced to the state of bouilli—the lumbar nerves were torn—the transverse processes of the lumbar vertebræ, and the lower ribs, were shattered—and the cavity of the abdomen and left side of the chest were filled with black blood. The skin alone had resisted the disorganizing action of the shot.

We have been favoured by a Gentleman, whose labours and whose judgment are constantly the means of enriching the pages of this Journal, with

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* Where, when, or how applied, we are not informed by the lecturer or reporter.

† For an account of those, see the last Number of this Journal.

a notice of a work lately published at Paris, and entitled a Treatise upon Gun-shot Wounds, founded on the clinical lectures before us. The present article upon the subject precludes the entire insertion of our correspondent's; but, as some of the questions are treated more fully in the Treatise than in the lecture, we shall take the opportunity of dovetailing some of the matter of our correspondent with our own. This will account for what might otherwise appear incongruous to those who possess the Léçons Orales. We shall select, in the present instance, the Baron's treatment of wounds of the intestines, for insertion.

"The principle upon which all rational attempts to re-unite wounds of such viscera as the intestines is founded, is the bringing into contact, and retaining in apposition, surfaces which, when inflamed, have a natural tendency to become agglutinated. Now it is well known that the mucous membrances have not this tendeney, but that serous membranes have it most characteristically. It is on this principle that the proposal of M. Dupuytren, to cure false anus by the section of the "parois adossées de l'intestin" (the lips of the wound being inverted into the cavity of the gut, so that the opposite serous surfaces are brought into contact, and placed, as it were, back to back), is founded; and that, more lately, M. Jobert de Lamballe has been led to "adosser, et maintenir adosées," by means of a suture, the serous membrane of the intestines, for the cure of wounds of these viscera. In the cases for which this description of suture is designed, the extent of the injury inflicted may be various; the gut may be merely wounded at one part, and this wound may be either parallel or oblique to its axis, or it (the gut) may be divided in a perpendicular direction, either partially or entirely round all its circumference. Hence there are different operations to be adopted, according to the nature and severity of the case.

1. When the wound of the intestine is a simple cut, whether the direction of this be parallel or oblique to its axis, we almost invariably find that it (the intestine) becomes more or less contracted upon itself, and that the lips of the wound are more or less turned inwards. If such be the state of parts, we should avoid disturbing it, as the very object of the operation is to bring and retain in contact the opposite and inverted serous surfaces of the wound. We should, therefore, be satisfied with merely washing the wound, and then, with the handle of the scalpel or with the point of the finger, smooth and make even its two lips:—The number of needles to be employed must correspond with the number of the sutures which we propose to make—they are to be passed through the whole thickness of the walls of each inverted intestinal fold (which is necessarily double) and the ligatures are to be tied separately; all the loose ends of the threads may be cut off, and the bowel be then gently re-placed in the abdomen, as near as possible to the outer wound. M. Lembert has observed, in his practice, that the ligatures usually escape into the cavity of the gut at the end of seven or eight days, after having cut across, by ulcerative absorption, the parts which they had embraced, and that a plastic exudation, which becomes very quickly organized, and remains for a considerable time afterwards, forms a bond of union (in the same manner as the provisional callus does in cases of fractured bone) between the wounded and the adjacent textures. The credit of first recommending and practising the above method of operation belongs to M. Lembert.

2. The proposal of M. Jobert is indeed in many respects very similar to that of M. Lembert; the essential difference consisting in his mode of tying the ligatures; for instead of tying each separately, he recommends that all the loose ends should be gathered into two little bundles and these then tied together: the gut being afterwards reduced into the abdomen, the two ends are to be secured to the lips of the outer wound by means of a strip of diachylon, and only when the adhesive union is sufficiently advanced are they to be gently drawn at. M. Jobert's own words, in his Traité Theorique, et Pratique des Maladies Chirurgicales du Canal Intestinal," 1829, are as follow:—

"Pour executer ce procédé, on lave les bords de la plaie avec de l'eau tiéde, on les renverse en dedans avec l'aiguille, et on passe des fils transversalement dans les bords, en ayant soin, qu'ils soient assez rapprochés, pour que les parties qui se trouvent dans l'intervalle ne fassent point hernie, et que les sereuses restent en contact immediat. Les fils sont ensuite ramenés au dehors, et maintenus suivant le procédé de Ledran."*

This operation is however not so praiseworthy as M. Lembert's; the opposite surfaces of the wounded gut being apt to become puckered and irregular, by the ligatures being tied all together.

3. M. Dupuytren proposes a modification of M. Lembert's method; the lips of the wound being brought in contact by their peritoneal surfaces, as already described, he passes through each inverted fold, a single needle, holding one thread, alternately from one side to the other, so that the thread is at every turn carried over the lips of the wound; or, without previously inverting the lips of the wound, "on traverse l'intestin à deux lignes d'une de ces lèvres, et d'un seul trait d'aiguille de dehors en dedans, et de dedans en dehors, on le traverse de même sur la lèvres opposée, et on ramene ensuite, chaque fois, le fil d'un coté a l'autre, de maniére à former au dessus des lèvres de la plaie, dont le bords se trouvent alors renversés en dedans, une espece de spirale, comme dans la 'suture du Pelletier.'" In this suture, the lips of the wound are retained in contact, not only at those points through which the thread passes, but also through the intervening spaces, in consequence of the spiral direction which it follows:—When the suture is completed, the ends of the thread are to be secured on the outside of the wound, as in M. Jobert's operation. The advantage of Dupuytren's method is, that only one needle and one thread are required for its performance.

When the intestinal tube has been fairly divided, M. Lembert recommends that we should employ the same method of operating as in simple or partial wounds. the edges of each divided portion are to be first gently inverted, and their serous surfaces brought and retained in apposition with each other by means of the suture "a points séparés;" much skill is required to adjust the two portions of intestine, but this will be facilitated by previously tying together the separated portions of the mesentery. Dupuytren prefers the "suture du Pelletier" to the interrupted suture employed by M. Lembert;

* The suture of Le Dran consists in gathering all the ligatures on one side of a wound into a bundle, and then those of the other, and tying, or twisting the two bundles together.

and he thinks that this preference is amply justified by the circumstance of M. L. having of late sometimes adopted it. An important rule to be attended to in all cases, is that the first stitches of the suture should be made through the part of the gut nearest to the insertion of its mesentery; when the suture is completed, the gut is to be replaced, and kept close to the outer wound by means of the two ends of the ligature, for five or six days; after which period they may be gently drawn at, to encourage their separation. Whatever kind of suture be employed, we must keep in mind that the success of the operation depends upon the nice apposition of the serous surfaces of the divided intestine. It is not necessary that we should be able to distinguish the upper, or gastric, from the lower, or anal, extremity of the intestine; and this circumstance alone is sufficient to induce us to prefer, in almost all cases, the "suture par adossement" to the "suture par invagination;" for in this latter operation, as the name implies, one step is to insert, or invaginate the upper into the lower portion of the gut, before we proceed to stitch them together: we have no doubt that it will be henceforth banished from surgery; the proceedings necessary for its accomplishment are too numerous and complicated, and tend to excite that very mischief, *viz.* inflammation of the bowels, which is so generally the cause of death in such cases.

It is singular to observe how the intestines sometimes escape injury in penetrating wounds of the abdomen; it can be explained only by supposing that the point of the instrument glides off from their slippery rounded surfaces.

The following is a good illustrative example of this accident:—

M. N. in a fit of severe grief, resolved to put an end to his existence, and for this purpose rushed with all his force against the point of a sword, which he had previously made fast in the wall of his apartment. So completely was the abdomen transfixed, that the point of the sword stuck out for eight or ten inches on the right side of the vertebral column. When M. Dupuytren saw him, he seemed to suffer but little pain; but this might arise either from the insensibility so common in all cases of suicidal mania, or from the circumstance of the instrument not having wounded any of the principal nerves. On examination, there were fortunately no symptoms of any extravasation, nor indeed of a wound of any of the abdominal viscera. It required considerable force to withdraw the sword, and Dupuytren was afraid that some hæmorrhage or extravasation might follow the operation; happily no such accident occurred, and the patient, after repeated bleedings and the employment of a very rigid antiphlogistic regimen, was speedily quite cured."

M. Dupuytren's remarks upon incisions are good, yet we know not that any would be novel or striking to the English surgeon. The papers of Mr. Hutchison, Mr. Lawrence, and others contain, perhaps, more than the Lectures of the Baron, on this important remedy.

M. Dupuytren offers a remark on the merits of English lint and of French *charpie*, to which we may direct a moment's attention. He observes that, in gun-shot wounds, where union by the first intention is neither desirable, nor to be obtained, the charpie is preferable as a dressing to our lint; for, the former becomes saturated with the matter which is formed, while the

latter tends to confine it. The remark is very just, and the greater use of charpie in this country, would, we think, be an improvement in our practice. Wherever suppuration is copious, and poultices not applicable, the charpie of the French forms an admirable dressing. The best substitute with which we are acquainted is lint, pulled into shreds.

M. Dupuytren speaks slightingly of the chlorides, or chlorates, as a local application in cases of gangrene. We cordially agree with the experienced lecturer; and we really believe that, much as they have been vaunted, they are possessed of little power in any kind of sore. The diluted chlorate of soda or lime is a gently stimulating, and a very cleanly lotion. We fancy this is a tolerably fair expression of its merits.

The feeble therapeutics of France are displayed in M. Dupuytren's incidental advice with respect to the treatment of jaundice. He merely recommends fomentations on the region of the liver.

We see little in the remainder of this series of clinical remarks to attract our attention, or occupy our space. A large portion is exclusively devoted to the consideration of the treatment of tetanus. That nothing new is said, and nothing satisfactory suggested, may probably be expected, and is really the case. M. Dupuytren condemns the practice of amputation, after the tetanic symptoms have appeared. He relates some cases which display its inefficiency, a fact of which the majority of surgeons are sufficiently aware.

We may now proceed to the third volume of these lectures. It contains eighteen articles, devoted to the following subjects:—Cysts developed in the substance of bones—serous cysts, containing small white bodies—the nail growing into the flesh—dislocations of the humerus—vital and mechanical dilatation of the urethra—club-foot—laceration of the perinæum during labour—congenital dislocation of the femur—fistula lachrymalis—ulcer of the rectum—ranula—abscess in the right iliac fossa—the modes of employing the actual cautery and moxa—hydatid tumors in the muscles and the viscera—fracture of the lower extremity of the humerus—exostosis of the superior surface of the last phalanx of the great toe—fibro-cellular tumors of the uterus—tracheotomy.

Some of the preceding subjects are of great, and some are only of minor importance; some have been noticed on former occasions, and some are probably not deserving of particular attention. We proceed to discuss them in their proper order, and shall endeavour to select important particulars, unencumbered with the superfluous or familiar details of a lecture.

ON THE CYSTS DEVELOPED IN THE SUBSTANCE OF THE BONES.*

This is really an interesting, and rather an instructive lecture. The object of the lecturer is to point out the circumstances which constitute the difference between the simple and non-malignant cysts developed in bones, and

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* In our analytical notice of these Lectures, we shall adopt a free and liberal interpretation of the text. The translator should allow not merely for difference of idiomatic language, but for national peculiarities of sentiment. The *same* idea may be differently conceived, as well as differently expressed, by individuals of different nations.

the genuine malignant diseases of their tissue. The reporters congratulate themselves and their readers on the perfect success of their patron. Of this we are not so perfectly assured; but our surgical brethren may decide for themselves.

The bones are the seat of cysts, whose parietes are extremely thin, and composed of bony matter, resembling in its tenuity hammered metal. The contents of the cysts are various—most frequently they consist of a fibro-cellular substance—sometimes of a serous fluid, unmixed or united with the latter—sometimes of a mucous fluid—or of adipocire—or hydatids—or pus and serum—or a jelly-like substance—or teeth—and so on. M. Dupuytren relates instances of some of these varieties; but we need not do more than enumerate them.

These cysts are seated in the substance of the bones. They are seen in the extremities of the long bones, in the bodies of the vertebræ, but most of all in the bones of the face. They are frequently displayed in the horizontal portion of the lower maxilla, in its ascending ramus, in the alveolar process of the superior maxillary bone, in the antrum of Highmore, and in the nasal fossæ. Their form is generally ovoid, occasionally oblong, and it may be flat. Their size is varied, no larger than that of a musket-ball on one hand, and equal to the dimensions of a fist upon the other. The parietes of these cysts are formed at the expense of the bone, in the interior of which they are developed.

The circumstances which give rise to these osseous cysts are in general obscure. External violence, as a blow, has preceded their formation—so has the incomplete extraction of a carious tooth. M. Dupuytren makes some remarks on the influence of the teeth on the production of the cysts. He observes that the latter are occasioned by alterations in the roots of the teeth, and are then most commonly developed in the alveoli of the canine of the upper jaw, where sometimes they attain a considerable magnitude. If, under these circumstances, the affected, or rather the affecting, tooth be examined, its extremity is found altered, surrounded with an osseous deposit, and bathed in the liquid contents of a bony cyst, attached on the one hand to the osseous deposition on the tooth, and, on the other, to the bottom of the alveolar cell. This cyst in general follows the tooth, when the latter is extracted; if left behind, it occasions tedious suppuration. Its contents are a liquid, sometimes very thick, and sometimes serous, and its internal lining membrane is smooth as serous membranes are.

We pass from this imperfect enumeration of the causes, to the symptoms and the diagnosis.

The earliest symptoms are uneasiness or pain; the latter is sometimes acute, and sometimes dull, but rarely of a lancinating character. After an interval, swelling commences, and a tumor of variable size is formed. This is dependent, as has been remarked, on the separation of the laminæ of bone by the cyst. The bony parietes of the tumor are so thin, that they yield beneath the pressure of the finger, and communicate, in yielding, a crackling sensation, resembling that produced by dry parchment. This symptom or sign is regarded by the Baron as pathognomonic. After frequent examination and repeated pressure, it will sometimes disappear, a circumstance which is probably occasioned by the elasticity of the lamina of bone being overcome, and by the lamina itself being temporarily, or even permanently de-

pressed. In this, as in other tumors, exploration by a puncture is always advantageous, in removing doubt or increasing certainty.

The disease with which the osseous cyst is most liable to be confounded is osteo-sarcoma. M. Dupuytren consequently bestows some pains in laying down their distinctive characters.

Osteo-sarcoma, he observes, is distinguished from its commencement by lancinating pains—enlargement of the veins—simultaneous implication of the neighbouring parts, whether soft or hard—their disposition to form a fungus, and to constitute a tumor irregular upon its surface. On the other hand, the osseous cysts do not contaminate the surrounding parts; their surface is smooth, and their increase is slow—that of osteo-sarcoma being rapid. The latter kind of tumor is traversed in its interior by spiculæ of bone; this is never observed in the osseous cyst. When we add to these diagnostic characters the crackling of the osseous cyst under pressure, and the information which a puncture can afford, we have run through the principal features of both maladies.

M. Dupuytren adds the following summary.—1. Osteo-sarcoma and the osseous cysts differ, in essential respects, from each other. 2. Osteo-sarcoma is a cancerous affection of the bone; but the cyst is a development of it or in it, owing, in most instances, to the presence of a fibrous body, resembling the fibrous tumor of the uterus. 3. The osseous cyst is seldom or never reproduced, when once completely extirpated; osteo-sarcoma, like other malignant tumors, most commonly returns after any kind of operation. The osseous cyst is usually, as has been stated, slow in its progress—sometimes, however it is rapid, and sometimes it may even be stationary. After an uncertain period, the osseous cyst is convertible into a malignant structure, especially into such as exhibits a fibro-cellular character.

The facility with which the osseous cyst is replenished or regenerated, when merely opened, or imperfectly removed, is displayed by one remark, and two conclusive cases. Before we pass to the prognosis and the treatment, we shall venture to offer one or two observations. It appears to us, that M. Dupuytren deserves our thanks for drawing attention, in so marked a manner, to the frequent existence of cysts, or encysted tumors, in bones, which, however serious, are not so malignant as genuine cancer. Most hospital surgeons were, we fancy, aware that diseases of this nature occasionally arise, and that operations for them are more successful than in cases of scirrhus or fungus hæmatodes. The maxillary bones have been partially, or even totally, removed by English and by foreign surgeons, for cysts of the nature described by M. Dupuytren; and probably few museums are deficient in examples of it.* Yet we do not feel convinced of the strict propriety of the diagnostic marks laid down by the Baron, nor are we quite assured that it is always so easy as the reporters hint, to draw the distinction between the non-malignant osseous cyst, and the really malignant fungoid tumor. We recollect the case of a young woman, who was under Sir Benjamin Brodie's

* There is a splendid specimen of this affection of the ascending ramus of the lower jaw in the surgical museum of St. George's Hospital. The disease was removed in a masterly manner by Mr. now Sir B. C. Brodie. The patient died of erysipelas. The cyst is chiefly cartilaginous or fibrous, with here and there scales or patches of ossific matter.

care in St. George's Hospital. There was a tumor of the upper jaw, which protruded in the situation of the antrum, encroached upon the nose, and projected in the mouth, and displayed, in a very characteristic degree, the crackling alluded to by M. Dupuytren. A puncture was made by Mr. Brodie, but blood only was discharged, and other circumstances made it too probable, that the malady was fungus hæmatodes.

One of the cases related by M. Dupuytren himself is calculated, we fear, to confirm our suspicions.

Case. A young girl, about seven years of age, was taken to the Hôtel Dieu, on account of a tumor in the superior maxillary bone. It was equal in size to the fist—the right nostril was obstructed, the eye protruded forwards, and the palatine arch pushed upwards and aside. The disease had followed a blow upon the cheek, some time after the reception of which pains had been experienced, and swelling had succeeded. The child had decidedly lost flesh. M. Dupuytren was inclined, in the first instance, to believe that the disease was osteo-sarcoma. But the discovery of "the pathognomonic symptoms" of an osseous cyst relieved his alarm and dispelled his suspicions. On compressing the anterior and superior portion, of the tumor, it first yielded, and then returned to its original condition, with the crackling similar to that of parchment. The same thing was observed in the bony palate. M. Dupuytren was re-assured. He made an incision into the tumor, through the mucous membrane of the lip—black blood only escaped. He introduced the finger through the wound—it passed into a soft substance, easily torn, which had expanded the bone, but was not confounded with it; in fact, the finger distinguished the existence of osseous parietes, firm in some parts, thin in others. On the next day, the patient was carried to the operating theatre, and an incision was made into the most dependent portion of the tumor. About two ounces of blood escaped, and M. Dupuytren detached with the finger a portion of the substance that filled the cyst. Injections were subsequently used, and, in ten days after the performance of the operation, the tumor was greatly diminished in size. M. Dupuytren hoped that, *if* the tumor continued progressively to decrease, a cure might be effected.

We fear that the English surgeon would regard this case as one of malignant tumor, the escape of blood only when a puncture was made, and the soft contents of the expanded bone, presenting two of the important features of fungus hæmatodes. We feel disposed, as we have stated, to doubt the strict justice of the distinction, which M. Dupuytren has laid down, between the non-malignant cyst and the malignant tumor. We fear the transition is too gradual to permit the abrupt and decided line. Yet still the remarks of the Baron are valuable, and, if they cannot be received implicitly, they are at least a fair approximation to the truth.

We now proceed to the treatment of these osseous cysts. Their destruction is required.

In the greater number of cases, it is necessary, in the first instance, to puncture the tumor, in order to ascertain the actual nature of the contents of the cyst. This having been done, an incision must be made into the tumor, and, if the cyst is seated in the face, the inside of the mouth should be selected for the wound. If the contents are solid, they should be extirpated,

and the use of the actual cautery is frequently demanded. The contents of the cyst having been removed, the latter should be dressed in freely with lint, and emollient or irritant injections should be employed, as circumstances may require. Inflammation of the parietes of the cyst is thus produced, and the membrane which lines it is destroyed; after this, the parietes contract upon themselves, and a cure is effected after a longer or shorter space of time. In some cases, it is necessary to make a counter opening, and to carry a seton between the two wounds.

Such is M. Dupuytren's treatment of these osseous cysts. We have doubted if they may not be more frequently malignant than M. Dupuytren supposes, and we doubt, in continuation, if the treatment he advises will be commonly efficient. We are sure that, in an instance of osseous cyst of the lower jaw, which we have witnessed, the attempt to cure the malady by opening the tumor, and exciting inflammation of its interior, would have almost been preposterous. But we bow to the Baron, and proceed to the next article.

ON SEROUS CYSTS, CONTAINING LITTLE WHITE BODIES IN THEIR INTERIOR.

The analysis of Mr. Brodie's work, which forms the article, in our present Number, immediately succeeding this notice of M. Dupuytren's lectures, displays the sentiments of Mr. Brodie on inflammation, and other diseases of the mucous bursæ. In that article will be found Mr. Brodie's description of numerous small bodies, resembling melon-seeds, which the bursæ frequently contain.*

When the inflammation of a bursa mucosa, says Mr. Brodie, is of long standing, it is not unusual to find floating in the fluid of the bursa a number of loose bodies, of a flattened oval form, of a light brown colour, with smooth surfaces, resembling small melon-seeds in appearance. There seems to be no doubt that these loose bodies have their origin in the coagulated lymph, which was effused in the early stage of the disease; and Mr. Brodie has traced the steps of their gradual formation, from irregular masses of no determined shape, to smaller portions, and, ultimately, to the flat, oval bodies described. Motion and pressure are the agents of change.

Such is the passage which our readers will find a little further on, in our review of Mr. Brodie's admirable volume. These peculiar substances contained within the bursæ, or, as M. Dupuytren terms them, in serous cysts, form the subject of the lecture now before us. We shall not pursue the lecturer through his lengthened cases and his trivial details, but select only such as are necessary to supply a consistent account of the complaint.

He observes that, before M. Cruveilhier published his Essay on Pathological Anatomy, very little was known respecting this affection. On this, as on many other occasions, M. Dupuytren has displayed his profound ignorance of the state of surgical science in this country. Mr. Brodie and Mr. Brodie's work had rendered the profession familiar with the complaint long before M. Cruveilhier's Essay saw the light. Nay more—we shall

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* *Vide* page 350 of this Number.—EDS.

soon shew that M. Dupuytren's ideas upon the subject are much less rational than those of Mr. Brodie; for he (M. Dupuytren) actually believes that the small white bodies are genuine hydatids, whilst he does not appear to be properly aware that the "serous cyst" is no other than a bursa.

M. Dupuytren observes, that the disease is usually remarked on the palmar surface of the wrist, beneath the anterior carpal ligament; sometimes however, it is noticed on the ankle, beneath the anterior annular ligament; and, in some rare cases, it has been observed on the olecranon—on the acromion—situated over the tuberosity of the ischium—and behind the great trochanter.

Falls, blows, pressure, distention, and repeated friction, are the usual causes of the malady.

M. Dupuytren's description of the foreign bodies is minute. He says that they are whitish, transparent, folded in their long diameter, forming a kind of pouch, of which one extremity is terminated by a broad and rounded cul-de-sac, whilst the other is elongated like the neck of a bottle, and finished off in the form of a sucker or mouth! They are evidently composed of laminæ, super-imposed upon each other. Their form is sometimes nearly cylindrical—sometimes conoid—and sometimes it is lenticular. Some are small, others large, and they seem to pass through several phases before they arrive at their mature development. Their consistence is almost cartilaginous; but M. Dupuytren thinks he has discovered a cavity in their interior. These whitish bodies are inclosed in a thin, smooth, yellowish, and serous cyst, containing transparent serosity.

Some of these bodies were sent to M. Bosc, a member of the Institute, in order to be submitted to a careful examination. He arrived at the conclusion, that they are not hydatids, nor any other description of animal, but merely debris of fatty cellular tissue, swimming in serous fluid. M. Dumeril arrived at the same conclusion.

M. Dupuytren remarks, that it is easy to convict these naturalists of a blunder. For, says he, when they are compressed (the little bodies, not the naturalists) between two portions of blotting paper, no appearance of grease can be observed. Their constancy of form and their lamellated structure induce him to believe, that they enjoy a distinct and individual existence, and he thinks, what would be very important if true, that he has seen several of these bodies move.

We need scarcely say, that we believe M. Dupuytren to be totally wrong, and Mr. Brodie and the naturalists to be right. We know that Mr. Brodie has carefully and often examined these bodies—that many others have examined them too—and that their firm and unanimous opinion has been against their hydatid nature. We have frequently regarded them with a lens ourselves, but never did we recognize mouth, or cavity, or motion. M. Dupuytren's microscope must, we fancy, be a good one, to allow him to perceive these conclusive properties.

There are two circumstances connected with the symptoms, on which M. Dupuytren lays especial stress.

The first has reference to the form of the cyst. It is always bisected in the middle, so as to constitute a double tumor, the portions of which are nearly equal. The second symptom is this—pressure upon either causes

the fluid to pass into the other portion, in doing which, a kind of crepitus is evident. This is the pathognomonic sign of the presence of these bodies in the cyst.

The Baron's statement is partially true, and partially erroneous. The tumor is not always bisected. M. Dupuytren does not appear to be aware that any bursa may contain these substances. We have seen them in the bursa over the patella. The division of the tumor into two portions is the consequence of the disposition of the neighbouring parts. The bursa on the palmar aspect of the wrist extends, as is well known, above and below the transverse ligament. When distended by effusion, the unyielding ligament binding it down gives rise to the projection above and below. The same thing occurs on the front of the ankle. But over the patella no tendon nor ligament can exert compression, and there the tumor is globular or oval. Yet the crepitus is as distinct as in the wrist or on the ankle. We lately saw an instance of enlargement of the bursal sheath investing the internodial muscles on the posterior aspect of the radius. The tumor was irregularly oval, but presented no contraction in any part. The peculiar crackling attendant on the presence of the melon-seed like bodies was remarkably distinct. We punctured the tumor and they freely issued from the opening. From the preceding observations it will, we think, be apparent that the Baron has committed a serious mistake, in considering division of the tumor into two portions as a feature invariably present. He has also, it would seem, been guilty of an omission, if not of an error, in not mentioning the fact that the "serous cysts" are usually no other than enlarged bursæ, or bursal sheaths investing the tendons.

The remaining remarks to which we shall direct attention are important, because connected with the treatment.

M. Dupuytren insists on the necessity of a large opening. When the tumor is bilobed, the incision should be made into either half. The necessity of a free incision is apparent when we recollect the anatomical relations of the cyst. On the ankle, and especially on the palmar surface of the wrist, the cyst is seated beneath the fascia, in the midst of tendons, vessels, and nerves, and surrounded by a fibrous cellular tissue. If a small opening is made, inflammation and suppuration occurring in the cyst give rise to swelling: to strangulation by the fascia and the tendons: to diffusion of matter along the sheaths of the tendons and the vessels in the hand, the forearm, and the arm: and to all the consequences which such mischief may occasion, among which death itself must be enumerated. When a large incision is practised in either half of the cyst, such disastrous results are less likely to ensue, for the matter which may form obtains a ready exit.

These free incisions having been performed, and the fluid and small bodies contained within the cyst having been set free, a portion of lint is to be introduced between the lips of both the wounds.

M. Dupuytren was once in the habit of using a seton, which passed from one to the other opening. This, however, he found so dangerous, that experience compelled him to abandon it. The inflammation that ensued was violent and extensive, and yet the hazard was unattended by any corresponding quantum of advantage over the simple introduction of lint. We may notice a case related by the Baron, in order to display the perils of the

seton. We have lately witnessed a fatal result from the use of the same means, in an instance of enlarged bursa over the inferior extremity of the scapula.

Case. A carpenter, æt. 35, first observed a tumor on the anterior aspect of the right wrist in the early part of 1813. It was a serous cyst, compressed about its centre by the transverse carpal ligament. It produced such inconvenience, that in June, 1814, he placed himself under the care of M. Dupuytren. The Baron made an incision in each portion of the tumor, discharged a number of the melon-seed-like bodies, divided the fascia so as to diminish the risk of strangulation, and passed a seton between the two openings. Severe pain ensued in the night succeeding the operation—swelling followed, and increased till the fourth day—and dirty-coloured, flaky suppuration was established. On the fifth day the seton was removed.

The inflammation spread up the arm to the axilla, and the general symptoms became severe. On the eighth day, the sloughy fascia was divided an abscess between the first and second metacarpal bones was opened—and compression was applied to facilitate the discharge of matter which extended to the hand and up the forearm. On the tenth and eleventh days there were rigors—irremediable prostration followed—and the fifteenth day was the patient's last.

M. Dupuytren concludes the article with an injunction not to urge the performance of an operation, no matter of what kind, unless the disease be extremely inconvenient. Under any circumstances, the patient should be told of the risk that waits on surgical interference. It would be equally foolish and improper on the surgeon's part, to promise at the same time immunity from danger, and certainty of cure. It must be owned that operations on the bursal sheaths are always attended with considerable hazard. The superficial bursæ may be meddled with more safely.

On the Nail growing into the Flesh.

The designation of this complaint is not perhaps unexceptionable or correct. It is, however, understood, and that will answer our purpose for the present.

M. Dupuytren remarks that, looking on the malady with a curious eye, he soon discovered the existence of two important varieties, requiring each a peculiar mode of treatment.

The first variety consists of ulceration of the skin at one of the lateral borders of the nail, or even in some distances at both; when on one, it is usually on the outer side. A little reflection will readily explain how a tight or ill-made shoe may press the edge of the nail into the skin, and produce inflammation, with its consequences. Such is, in fact, the general mode in which the affection is produced.

The complaint almost always commences at the angle where the lateral and anterior border of the nail unite. This appears to M. Dupuytren to be owing to individuals neglecting or avoiding to meddle with that angle when cutting their nails. Allowed to grow, almost undisturbed, it constitutes a point which runs into the flesh, and gives rise to the commencement of an

ulcerative process, that subsequently extends the whole length of the lateral border of the nail.

Of the symptoms of this very painful affection we think we need not speak. They are usually too obvious to escape the observation, or deceive the judgment of the patient or the surgeon. Yet M. Dupuytren relates a case, in which they were mistaken and treated for gout, during the lengthened period of eight years.

M. Dupuytren reviews the principal methods of treatment adopted, and concludes by enumerating the superior advantages possessed by his own. We shall disregard his criticism, and attend to his advice.

After diminishing by fomentations and by other means the general inflammatory condition of the part, the Baron passes the point of one blade of a pair of scissors under the centre of the free edge of the nail. By a rapid thrust the blade is carried back as far as the root of the nail extends, and the scissors are made to divide the nail into two lateral halves. That corresponding to the side affected is then seized with a pair of dissecting forceps, and torn or twisted off by a kind of rotatory motion, directed from the centre of the nail towards its side. If the other side of the toe is affected, the other side of the nail is removed. If fungous granulations exist, they are liberally touched with caustic. Appropriate dressings are afterwards applied, and cicatrization rapidly ensues. In general, the nail is not reproduced in old persons, but sometimes it is found to be regenerated in young ones.

The kindly eye of parental attachment is obvious in the following declaration. It *might* be supposed, observes the Lecturer, that the treatment just described would be very painful; but patients, notwithstanding, seldom cry out, when compelled to undergo it. If not a word was ever uttered, we think it would be difficult to convince one human being, that slitting up his toe-nail with a pair of scissors, and forcibly twisting off either half, is not most intolerable anguish. Whatever M. Dupuytren may believe, his process is abominably violent and painful.

We have treated many cases of this complaint, and we never employed, nor do we think we would advise, the treatment resorted to by M. Dupuytren. We have not in any instance failed to remove the complaint effectually, by means of the following more gentle management. The affected side of the nail must be scraped, in order to render it as thin as possible. The fungous granulations should then be touched with caustic, for the double purpose of affording room and diminishing their excessive sensibility. These preliminaries having been adopted, the surgeon should gently and gradually raise the edge of the nail, with the flat end of a small eye-probe. The loose and elevated portion is to be removed by means of a pair of dissecting scissors. The surgeon must proceed with this process of raising the nail and removing it, until he gets beyond the existing fungus, and arrives at the connexion of the nail with the sound cutis. Here he is to stop, for where the fungus is, the nail is necessarily separated from the cutis: and where the latter is connected with the nail, there can be no fungus, and consequently no disease. The remaining fungus should now be freely destroyed with lunar caustic, and dry lint should be applied. At the subsequent dressings the nail should be gently and gradually loosened from the cutis, so as to admit dry lint beneath its edge, which is to be cut and kept cut, in order to prevent its approaching the wound, or even the cica-

trix. Such is the method which, in our own case, as well as in that of many others (for in hospital practice the complaint is common), we have found attended with little pain and with complete success. No doubt M. Dupuytren's is equally successful, but then it is cruelly severe.

The second variety of this affection next engages the attention of the lecturer. His observations on this subject are extremely good, and cannot be materially reduced.

We have seen that, in the first variety, the nail presses in upon, irritates, and inflames the soft parts at its side. In that variety, the initiative is, therefore, seated in the nail. But in the one to which we now proceed, it is the cutis which is primarily diseased, and the nail is affected in a secondary manner.

This affection commences at the base of the nail, in the skin which forms its matrix, and from which it grows. A few words on the anatomy and growth of the nail will, probably, not be misplaced.

The base or adherent extremity of the nail is implanted in the skin in a particular manner. The cutis having reached a little way over the nail upon its dorsal surface, is reflected to the posterior border of the nail, under which it proceeds to form the plane on which the nail is laid. The cuticle, however, instead of passing beneath the nail, is reflected back for a shorter distance than the cutis, and becomes continuous with the external lamina of the nail itself. Thus, the base of the nail is received in a kind of groove of the cutis, which is termed its matrix, and out of which it grows. The variety of disease which we are now considering, is essentially an affection of this portion of cutis. From some cause or other it inflames and ulcerates, the ulceration displaying a semilunar form, with hard and elevated edges, and a deep red, or livid and violet colour. The nail is shortened, and rereduced, perhaps, to half its extent, or even totally removed. In its place, some portions of a horny sort of substance are seen to spring up here and there: and frequently a portion of the nail is found concealed beneath the fungous granulations. The latter are, as we observed, confined to the base of the nail and its vicinity.

The colour of the nail, when it remains, is altered to a grey or to a black tint. Sometimes it is loose. The wound is generally bathed in a sanious or bloody suppuration, which, conjointly with the natural secretions of the parts, secretions in these patients always offensive, gives rise to an odour so insupportable, that other individuals are incapable of living with them. The attempt to walk, or even to stand, is productive of great pain, and occasions bleeding of the fungus. Any kind of shoe is perfectly unbearable.

The preceding symptoms are displayed in most cases, with little variation. In a few, however, the disease appears more particularly to affect the portion of the skin which is immediately subjacent to the nail. In instances of this description, this organ is observed to be raised by small tumors, of a fibrous, cartilaginous, osseous, or, perhaps, of a vascular nature, which give rise to suffering, in proportion as the pressure upon them is considerable.

The treatment required for the first variety of the complaint is quite insufficient for the removal of this. The disease is in the cutis; the removal of the nail will not remove that which the pressure of the nail has not oc-

casioned. In short, the affected portion of the cutis must be thoroughly dissected out. The measure is severe, but it is necessary.

M. Dupuytren puts his patient on a bed or chair, and makes with a scalpel a deep semicircular incision, three lines, or thereabouts, beyond the matrix of the nail, parallel to which it is directed. The affected portion of skin is then dissected off, by proceeding from behind forwards, the nail, if it remains, being necessarily removed with it. If any pieces of a horny substance still exist, they also are necessarily removed, till not a vestige of a morbid structure can be seen. All the white-looking and fibrous portions, marked at the bottom and towards the angle of the wound, should be carefully removed, for otherwise they may reproduce the nail, and re-establish the disease.

Mild dressings should be afterwards applied, and the usual means to avoid inflammation, afford relief to pain, or expedite the healing process, should be had recourse to. If any appearances of horny matter are at any time presented, the knife must immediately remove them. After cicatrization, the skin, when examined, is found to be smooth, but thick, and sometimes of a horny consistence. In conclusion, M. Dupuytren offers the following brief resumé.

1. In general, when the nail is the seat of alteration, it presses injuriously on the neighbouring skin, and constitutes the disease denominated—"the nail growing into the flesh." The removal of the nail is the only successful method of treatment.

2. The disease which is characterized by inflammation, in the first instance, of the skin which serves as matrix for the nail, is distinct from the preceding in its symptoms, its results, and the treatment which is necessary. The best and the quickest method of cure is to remove the whole diseased skin with the knife.

3. In every case of either disease, we must not lose sight of antiphlogistic or other remedies, which, according to circumstances, are always of service, and may sometimes obviate the necessity of resorting to a painful operation.

On Dislocations of the Humerus.

The able work of Sir Astley Cooper has made the subject of fractures and dislocations too familiar to the English reader to admit of much further illustration at present. Sir Astley has stated the leading facts so forcibly and clearly, that the vividness of the impression produced by his descriptions is rather diminished than increased by trifling subsidiary details. We shall not, therefore, analyse the lengthened lecture of M. Dupuytren on luxations of the humerus, consisting, as it does, of nearly seventy pages, but shall select such portions as express the result of the Baron's experience on disputed points, or seem to present some novel views, or some hitherto unheeded facts.

M. Dupuytren remarks, that surgeons have denied the existence of incomplete dislocations in ball and socket joints; but that morbid anatomy has displayed their incorrectness. In 1824, the surgeon in chief of one of the hospitals in Paris presented to the Academy a preparation, taken from the body of a man who had died eight months after dislocating the humerus. A new socket had occurred, partly formed by the glenoid cavity of the scapula, and partly by a small portion of the surface of the ribs, whilst the head of the humerus was grooved, to receive the anterior edge of the glenoid cavity. This disposition gave rise to a kind of ginglymus joint. During life, the individual had only the power of slight motion forwards and backwards of the arm. The surgeon who reported this fact to the Academy saw the softened head of the femur, in a case of spontaneous dislocation, lying and fixed on the anterior border of the acetabulum.

The incomplete luxation of the femur, in cases of disease, has, we think, been sufficiently known in this country. But, in instances of that description, the acetabulum and its margins are usually altered. Sir Astley Cooper unless our memory belies us greatly, has described with some minuteness an incomplete luxation of the head of the humerus, which is placed on the margin of the glenoid cavity and the coracoid process. The reported good offices between Sir Astley and M. Dupuytren should have brought this circumstance to the memory of the latter.*

The distinctions between the symptoms of luxation of the humerus into the axilla, and fracture of the cervix of the bone, are sometimes so obscure, as to require much experience and the utmost care to effect their discrimination. The remarks of M. Dupuytren are deserving of attention.

Every one, says the Baron, affected with a dislocation or fracture of the upper extremity of the humerus, has received a fall on the same side of the body.† But the situation and position of the limb, at the moment of the fall, differs in two cases, and the difference usually decides the nature of the accident that is to follow. If the extended arm has been carried forwards or behind, to break the fall, the consequence is dislocation; but, if the arm has been retained in apposition to the side, and the fall has occurred on the shoulder itself, fracture of the head, or of the upper part of the humerus, ensues.

On this statement we would make one observation. In many, perhaps in the majority of instances, the patient is aware of the manner in which he received the accident, and can remember if he fell on the hand or on the

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* The following story of M. Dupuytren and Sir Astley has been told. When the former was in London, and accompanied Sir Astley round the wards of Guy's Hospital, he saluted the worthy Baronet, on parting, in the Continental fashion, with a kiss. Sir Astley blushed, but turning to the laughing students observed, with a wink, that he had had the advantage of the Baron, for, in Paris, he had kissed his daughter. The anecdote is characteristic, and may be true.

† This is not strictly correct. Dislocations of the head of the humerus have occurred in consequence of the application of some sudden extending power to the hand. A boy, for instance has been holding a horse by the bridle, when the animal, suddenly raising its head, has occasioned dislocation of the head of the humerus into the axilla. The rationale must be obvious.—Eds.

shoulder, with the arm close to or away from the body. But it is also far from unfrequent, to find that the accident has been of such a character as to prevent the individual from knowing, or from recollecting, these minute particulars. A man, for example, falls from a height, and dislocates his shoulder. He is bruised in many places, and of course it is impossible for him, or for the surgeon, to determine by the history, or by any trivial difference in the marks of contusion or of violence, whether the humerus has been dislocated or broken. We are convinced, too, that the fact is not always as the Baron states it. We have seen dislocation of the head of the humerus occasioned by direct injury to the shoulder, and we would caution the inexperienced surgeon against attaching implicit confidence to this species of diagnosis. It is certainly an assistance, frequently a great one; but it must not be received for more than it is worth.

To return to the remarks of M. Dupuytren. In the case both of fracture and of dislocation, there is pain in the shoulder, and the patient always thinks that the fall has been upon it. When the pain, however, is occasioned by a dislocation, and the fall has taken place on the palm of the hand, the latter bears evidence of such having been the case, in the shape of dirt, excoriation, or bruises; but if fracture has occurred, and the shoulder itself has been the stricken part, the tearing or soiling of the clothes which covered it, and the marks of injury on the shoulder itself, are equal evidence of the nature of the accident. In dislocation, the pain is produced by the laceration of the fibrous capsule and contiguous parts; in fracture, by the bruises of the shoulder, and the injury inflicted by the lower extremity of the bone.

Ecchymosis is observed in both species of accident. In dislocation, it is comparatively rare, and, being produced by the tearing of the ligament, and by internal injury, it is situated on the inner and anterior part of the arm. In fracture, on the contrary, this symptom is almost invariably present, and is found on the shoulder itself.

In both accidents, the acromion projects, a hollow is felt beneath it, with flattening of the deltoid, and a prominence is felt in the axilla. The projection of the acromion, and the flattening of the deltoid, are greater in dislocation than in fracture, in the latter of which the muscle seems shortened, and, as it were, swollen. The hollow under the acromion is greater, also, in dislocation than in fracture, and the prominence in the axilla is more distinct. In dislocation, the prominence feels rounded—in fracture, it is more irregular.

Mobility of the limb and crepitus do not exist in dislocation, whilst they are easily recognized in fracture. The crepitus is most apparent when the humerus is rotated upon its axis. The experimentum crucis of a fracture or a dislocation is, perhaps, the attempt to effect a reduction. After the reduction, the limb is readily retained in its position, in the case of dislocation; but particular care, and an apparatus, are required to maintain it properly when a fracture has occurred.

M. Dupuytren observes that fracture, without displacement, is occasionally mistaken for a violent bruise upon the shoulder. The crepitus and mobility, distinguished by rotation of the humerus at the elbow, afford the only means of diagnosis. The lecturer properly points out a source of fal-

lacy, which frequently misleads inexperienced surgeons. In severe contusions of the shoulder, as of other joints, a kind of crepitus is occasionally noticed, although no fracture has occurred. M. Dupuytren asserts that this is occasioned by inflammation of the articulating surface of the joint, and consequent deficiency of synovial secretion. Now this appears to us to be a bad explanation. For no other symptom of inflammation of the synovial membrane is presented in these cases, and if such inflammation did exist, secretion would probably be increased rather than diminished. A more consistent rationale will be found in the belief, that either blood or lymph is effused in the textures external to the joint, and that motion of these textures gives rise to the phenomenon.

M. Dupuytren relates some cases, but the subject has probably been sufficiently pursued.

The symptoms and the treatment of old, unreduced dislocations, occupy the attention of M. Dupuytren, and may not unprofitably attract our own. With respect to the symptoms, little need be said. The diagnosis is sometimes very difficult, and must be principally formed through the medium of a practical acquaintance with the characters of dislocations in their early stage. M. Dupuytren lays particular stress on the following features:—The elongation of the arm—the lengthening of the anterior border of the axilla—deformity of the shoulder, and facility of producing a depression in the deltoid by pressure with the fingers.

The treatment of dislocations of some standing contains the interesting and important problem—what lapse of time is sufficient to render attempts at reduction improper?

Surgeons have differed widely on this point, and the ancient practice is strongly contrasted with the modern. Benjamin Bell, even, was of opinion, that reduction should not be tried, if some days had elapsed after the occurrence of the dislocation. His advice has been contemned by judicious boldness, and the consequence has been, the accumulation of a mass of facts in opposition to it. By those facts, or at least by a portion of them, M. Dupuytren attempts to arrive at some determinate conclusions. Before we proceed to them, it is necessary to clear away an obvious objection that almost unavoidably presents itself to the mind, when reflecting on this subject. We allude to the possibility of injury being inflicted on the vessels and the nerves in the vicinity of a joint, from the violence indispensable to effect the reduction of a dislocation of long standing. That reasonable supposition would seem to be supported by a memoir, published by M. Flaubert, surgeon to the Hôtel Dieu of Rouen. In that memoir are contained some extraordinary instances of mischief and disaster. Some six or seven years ago, we noticed the Memoir in this Journal; but we think it would be well to present, as M. Dupuytren has done, an abstract of the cases related by M. Flaubert. They are calculated, at all events, to read to the incautious or the inexperienced surgeon a lesson of gentleness and prudence.

Case 1. The patient was a sturdy sailor, æt. 57. The head of the humerus was dislocated under the pectoral muscle; the dislocation had existed for eleven days. The reduction was effected in the following manner. The

patient was seated in a high chair, extension was made from the wrist, whilst the counter-extension was effected by a roller, passed under the arm-pit, the ends crossing over the opposite shoulder, and fixed to a staple in the wall. A ball was kept in the hollow of the axilla, to lift up the head of the bone at the instant of reduction. The extension was made by eight intelligent pupils, M. Leudet taking the management of the arm. At the first attempt, the head of the bone was dislodged from its place, and brought into the axilla; the second trial was followed by its complete reduction. An enormous swelling took place, almost immediately, beneath the pectoral muscles. The face became pale, and covered with sweat—the lips livid, and the pulsation in the radial artery ceased. A pulsating tumor formed in a few days in the axilla—gangrene of the limb succeeded—and, in a fortnight after the reduction the patient died.

Dissection. Hand and inside of the arm in a state of gangrene. The pectoralis major was almost completely torn across, and its fibres were separated by clots of blood. The upper portion of the short head of the biceps was ruptured also. All the muscles of the arm, shoulder, and outside of the chest, were infiltrated with blood. Between the pectoralis minor and latissimus dorsi, there was a large clot, on removing which, the axillary artery was found to be fairly torn across, a little above the origin of the subscapular. In order to discover the upper end of the vessel, it was necessary to dissect the subclavian, which was enlarged, as were the branches which arise from it. The axillary artery lay beneath the pectoralis minor, upon the rib, to which it adhered by means of coagulable lymph. This end of the vessel was narrowed, and the thoracic nerves flattened. The second rib was depressed, its periosteum slightly absorbed, and the bone itself a little rough. The head of the humerus was somewhat flattened at the part corresponding to the rib: the capsule was torn—the cartilage rough and ulcerated in parts. The inner margin of the glenoid cavity was fractured.

Case 2. Madame G. æt. 64, dislocated the head of the humerus into the axilla, by a fall, on Nov. 27th, 1823. Reduction was effected in the usual manner, by five assistants, seven weeks after the accident. The first attempt, which lasted seven or eight minutes, was unsuccessful; a second, and shorter one, effected the reduction, during which, the patient felt as though something "gave way" on the inside of the wrist. The patient was now found to be hemiplegiac on the right side. There was no motion, and sensation was very slight, especially in the arm. The eye of that side was half-closed, and there was a slight ecchymosis on the foot and lower third of the leg. M. Flaubert, considering the hemiplegia to be dependent on some extravasation within the head, produced by the agitation and violent efforts of the patient during the operation, bled her immediately. Purgatives were given, and rubefacients, with blisters, applied. The symptoms disappeared in part. In three months the leg was free from paralysis, but a degree of numbness and susceptibility to fatigue remained so late as February, 1826, the date of the last visit. The head of the humerus seemed to be drawn forwards, its motion was imperfect, the patient not being able to lift the hand to the mouth. The hand was useless, the thumb being extended, the other fingers

semi-bent. The ring and little finger were quite insensible, and the heat of the limb appeared to be diminished.

Case 3. F., æt. 70, dislocated the head of the left humerus into the axilla, on Nov. 1st, 1825. Five weeks afterwards, M. Flaubert accomplished the reduction after two attempts. The patient immediately became affected with great constriction of the chest, a sense of suffocation, and the face became purple and injected. These symptoms were followed by an emphysematous effusion, stretching from under the clavicle, across the shoulder, to the middle of the back, where it gradually disappeared. The patient was pale, and the pulse weak, with nausea. In the left thigh and leg there was a sensation of cold and great numbness; the least touch upon the thigh caused exquisite pain. The patient was placed in bed, when she fell into a state of syncope for about an hour, on recovering from which, she complained of imperfection of vision, severe head-ach, and loss of motion in the right arm. Paralysis of the bladder, and of the upper and lower extremities of the left side, succeeded—difficulty of breathing followed after—sloughs formed upon the sacrum—and the patient died comatose on the 18th day after the reduction of the dislocation.

Dissection. The pectoralis major was bruised by the roller used for counter-extension, indeed, on the inside the fibres were reduced to a kind of reddish-brown bouillie. On the outer border of this muscle was a cavity containing bloody serum. All the nerves of the arm were united in a mass in the axilla by means of condensed cellular tissue, a circumstance apparently owing to the pressure produced by the head of the bone. On approaching the scaleni muscles, the four last nerves which go to form the axillary plexus, namely, the 6th, 7th, and 8th cervical, and 1st dorsal, were found torn from their origin in the spinal marrow! The brain and its membranes were sound. On opening the vertebral canal the dura mater was of a reddish brown. The tunica arachnoides was injected, particularly in the neck. The spinal marrow at this part presented a range of white spots, marking the place from which the roots of the nerves had been torn. The medulla at this point was thicker than natural, and of the consistence of a reddish-brown bouillie, the grey matter not being distinguishable from the white. The filaments were rather red and injected.

Case 4. A woman, æt. 45, dislocated the forearm backwards. No attempt at reduction was made till Dec. 9th, 1826, twenty-seven days after the accident, when it was attempted with the aid of seven pupils. Two such efforts were unsuccessful. The patient was then bled, and extension being made again, the ulna slipped into its place, whilst the radius which remained behind was easily pressed by the thumb into its situation. At the instant of reduction, a diminution (*étranglement*) of the elbow-joint took place, whilst a projection appeared above and below it. This was accompanied with a sound like that produced by the tearing of parts, and it seemed to those present, that the muscles which surround the articulation, with all the parts excepting the skin, were rent across. A considerable swelling followed, with a disposition to continual fits of syncope, whilst no pulsation could be felt in the radial artery. The pulse, however, returned next day,

and the swelling gradually subsided. On the 26th December, she had an attack of pain in the right side of the chest, which was relieved by leeches. On the 4th January she left the hospital, having tolerably free motion of the arm, none in the forearm, and but little mobility in the finger.

Case 5. The dislocation was that of the head of the humerus into the axilla, and had occurred fifteen days before M. Flaubert attempted its reduction. Before this could be effected, the operators were obliged to desist, in consequence of the patient's complaining of excessive pain in the wrist, with loss of motion in the hand and fore-arm, and numbness of the whole of the left lower extremity. Considerable constitutional irritation, and a severe attack of fever followed, whilst there took place, after a time, infiltration of the arm and fore-arm near the elbow, which lasted for several months. Subsequently, a slight power of flexion and extension were remarked in the fingers, but it did not increase. The fore-arm, at the time of the report, 1827, could be bent to a right angle with the arm, but there was much pain in the former, the neck, and the wrist; the whole limb, in fact, was wasted and useless.

Case 6. A man, æt. 40, received a dislocation of the left femur, the head of which rested a little above the great sciatic notch. Reduction was almost immediately effected by M. Flaubert. Two days after the accident the thigh became swollen, and the hip painful. The swelling extended to the knee, low fever was established, and on the fifth day after the operation the patient died.

Dissection. A large ecchymosis beneath the skin at the anterior and outer part of the thigh; rupture of the pyriformis, gemelli, and quadratus femoris muscles. The capsule torn, as was the ligamentum teres, close to the head of the femur. In the cavity of the joint there was a quantity of reddish pus, which communicated through the rent in the capsule with a depôt of bloody pus situated between the pectineus and adductor muscles. All the great organs were sound.

The perusal of the preceding cases will, we fear, give rise to opinions not highly favourable to the caution and judgment of M. Flaubert. An unlucky man might meet with an untoward case, but few surgeons of even the most vast experience have been visited with such a series of ugly accidents. In short, we conceive there can be no doubt that M. Flaubert used unwarrantable violence.

M. Dupuytren seems to participate in this opinion, though the judgment of the surgeon and the critic is varnished by a faint expression of regret at the bad fortune of M. Flaubert. Indeed the results of this gentleman's operations would seem to be cleverly and discreetly adduced as a foil to the more fortunate manipulations of the Baron. However this may be, a statement of the results of operations for reduction, in thirty-three cases of old dislocations, deserves the attention of the surgical reader.

Of the thirty-three cases twenty-five were instances of dislocation of the head of the humerus in various directions—five of dislocation of the femur—and three of that of the fore-arm.

Of the thirty-three dislocations—

5	were reduced from the 5th to the 10th day.
6	. . . . . 10th to the 20th.
4	. . . . . 20th to the 30th.
5	. . . . . 30th to the 40th.
5	. . . . . 40th to the 50th.
2	. . . . . 50th to the 60th.
0	. . . . . 60th to the 70th.
2	. . . . . 70th to the 80th.
2	. . . . . 80th to the 90th.
1	. . . . . 90th to the 100th.
1	. . . . . at the end of 2 years.*

The formidable number of twenty-six are drawn from the private and the public practice of M. Dupuytren. The dislocation of most brief duration had lasted for five days, the oldest had attained the age of eighty-two, and the majority had existed for twenty, forty, and fifty days.

One of the twenty-six patients died, in consequence of enormous laceration of the soft parts surrounding the articulation produced by the teeth of an enraged horse.

One patient suffered ever afterwards from difficulty in the motions of the hands and fingers. Reduction had been effected in this instance eight days after the reception of the accident.

In one child, ten years of age, dislocation of the elbow had existed for sixty-six days, and reduction was found to be impossible.

The remainder of the twenty-six patients of the Baron were quickly and perfectly cured.

The twenty-seventh and twenty-eighth cases are taken from Dessault. One of the dislocations (of the head of the humerus) was reduced on the forty-fifth day. Emphysema supervened upon the chest, but the patient, who was sixty years of age, had recovered on the thirtieth day after the operation. The second dislocation (of the humerus also) was reduced by Dessault on the ninetieth day. The patient was a female, aged 34; she was was cured on the sixty-eighth day from the operation.

The twenty-ninth and thirtieth cases are taken from a work of Mothe, a surgeon to the Hôtel Dieu of Lyons. One dislocation had existed for seventeen days, and the other for five weeks prior to reduction.

The thirty-first case occurred to M. Sanson, second surgeon of the Hôtel Dieu of Paris. The patient was a female aged fifty-five, and the dislocation was reduced on the ninety-eighth day. The patient was soon well.

The thirty-second is extracted from a Treatise on Surgery by Delamotte, and is that of a physician named Desrosiers, who met with a dislocation of the humerus, which Delamotte reduced at the end of two months.

The thirty-third case is related in the fifth volume of the Memoirs of the Academy of Surgery, and displays so much of the incredible and inaccurate, as not to deserve more particular notice. The thigh is said to have been dislocated, and to have been reduced after the expiration of two years.

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* A little research would extend this list from English sources. We are afraid of unseasonably augumenting the dimensions of this article.—*Eds.*

M. Dupuytren relates a case, possessing some features of interest. The reporters, indeed, who magnify at every turn the genius of their chief, assert that the fact is unequalled for singularity by any in the history of medicine. Our readers may judge for themselves.

Case. An old woman presented herself in the out-patient's room at the Hôtel Dieu, with a dislocation of the head of the humerus. The accident had happened six weeks previously, from a fall upon the hand with the arm extended forwards. The symptoms on her application were evidently those of dislocation downwards, into the axilla. But she stated that the symptoms had varied in the interval between her fall and her appearance at the Hôtel Dieu; and she said she had had the power of restoring the limb to its proper place, by efforts of her own and certain motions of the shoulder. When she had done this, she could move the limb, but still a certain degree of difficulty was experienced, and on making the attempt at any thing like an extensive motion, the symptoms of dislocation reappeared.

M. Dupuytren at first disregarded this story, and proceeded in the usual manner to reduce the limb. This appeared to have been done, and the patient declared that the limb was in place, as it had been before. On making a more particular examination of the shoulder, M. Dupuytren discovered that the deltoid was still more flattened than natural, and the prominence of the acromion still too great. Extension and counter-extension were resumed, and, after some slight efforts the head of the humerus was properly lodged in the glenoid cavity.

M. Dupuytren explains the circumstance with ingenious probability. The head of the humerus had undoubtedly been dislocated into the axilla, and had probably ruptured the capsular ligament. He supposes that the patient was enabled to replace it, partly on the anterior border of the glenoid fossa, partly in the contiguous subscapular fossa—that slight motions of the arm were compatible with the presence of the head of the bone in this situation—but, that more extensive movements occasioned its displacement.

These are the only observations of the Baron on dislocation of the head of the humerus, which appear to require any notice.

On Congenital Dislocation of the Femur.

This is the subject of a clinical lecture of forty-eight pages in length. It does not follow the preceding article, in the publishing volume, but we introduce it here, for the purpose of connecting the remarks on dislocations. The substance of this lecture may be found in a memoir of M. Dupuytren's in the Repertoire d'Anatomie. That memoir was noticed in the year 1827; but as the abstract we then gave was brief, though sufficient to display the author's views, and as many of our present readers are probably unacquainted with it, we think we may be excused for its reintroduction upon this occasion. It would not be just to our readers nor to the lecturer to omit all notice of this, an interesting and important lecture, and we cannot present a more complete and at the same time condensed exposition of the lecturer's views, than the following short republication will afford.

It is well known that the most frequent kind of dislocation to which the hip-joint is liable is that of the head of the femur upwards and backwards on the dorsum of the ileum. It is also well known that of this dislocation there are two varieties—the first is the result of accident—the second is *consecutive*, the result of scrofulous ulceration in the joint. But M. Dupuytren in the memoir now before us, proposes to add to the list a third variety of this same dislocation, which, as it is found at birth, he terms "congenital."

The signs which characterise it, are shortening of the limb—presence of the head of the femur on the dorsum ilei—prominence of the trochanter major—retraction of almost all the muscles of the upper part of the thigh towards the crest of the ileum, where they form around the head of the femur a kind of cone, the base towards the os innominatum, the apex towards the trochanter—the almost entire denudation in consequence, of the tuber ischii—the rotation of the limb inwards—the obliquity of the thigh proportioned, of course, to the age and developement of the pelvis—the meagreness of the limb, out of all proportion to the trunk and upper extremities, which are really well developed—and the imperfect motions, particularly of abduction and rotation. The upper part of the trunk of persons thus affected is thrown backwards, whilst the lumbar portion of the column projects as much forwards; the pelvis is placed almost horizontally on the femurs, and the ball of the feet alone touches the ground. In walking we observe them incline the body strongly towards the limb which is to support the weight, at which moment the head of the femur of that side is seen distinctly to rise on the dorsum ilei, in consequence of the superincumbent weight and sinking of the pelvis, and then they drag painfully forwards the opposite limb, the head of the femur of which is perceived not to rise but to sink, in consequence of its own weight drawing it down. This series of phenomena then is repeated each step the patient takes, and although locomotion to him is not so painful as it appears, still he is incapable of making any thing like a long journey.

In the recumbent posture, most of the symptoms of the dislocation in a great measure disappear, in consequence, no doubt, of the relaxation of the muscles and removal of the weight of the trunk. In this position of the body the surgeon can by a slight effort elongate the limb and shorten it again, that is, he can pull the head of the femur downwards or press it again upwards to the extent of two or even three inches, according to circumstances.

Let us look to the history of this complaint. Even at birth the prominence of the haunches, the obliquity of the femurs, &c. are perceptible, but in these cases the attention of the parents is seldom much directed to the malformation till the child begins to walk, and indeed even then its awkward efforts are attributed in general to weakness, &c, till the end of the third or fourth year, when the parent is at last convinced there must be something wrong. As the pelvis begins to be developed, (for it is a curious fact that the growth of the pelvis is never affected in these patients,) the symptoms which we have enumerated above become more marked, especially in females, and a person not acquainted with the true nature of the malady would consider it the consequence of scrofulous disease of the joint. But the previous history, the absence of all pain, swelling, abscess, fistula or

cicatrix, and the simultaneous affection of both sides are sufficient to correct this error. At the same time it must be remarked that these individuals are for the most part of a lymphatic and scrophulous habit.

As the age of the person increases, and the superincumbent weight becomes of course greater, the heads of the femurs rise on the dorsum ilei till at last they almost touch the crista, the obliquity of the bones is increased, and the difficulty of motion proceeds at last so far as to incapacitate the patient from all active exercise.

As this of course is not a fatal disease, the opportunities for cultivating its pathology must be comparatively rare. In the cases which he has examined M. Dupuytren has found the acetabulum almost entirely obliterated or even entirely wanting; the head of the femur a little flattened on its internal and interior surface, and a sort of cotyloid cavity to lodge it, formed on the dorsum of the ileum, as happens in unreduced accidental dislocations. In one or two instances, he has seen the ligamentum teres elongated, and in some places worn apparently from the pressure and friction of the head of the femur.

The Baron puts some questions to himself and the reader as to the etiology. He asks, can the dislocation be consecutive to a disease which assailed the fœtus and disappeared before birth? Or can it be the result of an ante-natal accident? Or lastly, can it be owing to an original imperfection of the acetabulum, in other words, can it be a congenital malformation? He seems to incline to this position, but like a skilful disputant he he has dealt his blows so equally to all his men of straw, that it is almost hard to say which is up or which is down.

M. Dupuytren makes some very sensible remarks on the treatment, which of course can be but palliative. As the weight of the trunk is the main agent in aggravating the displacement, repose is obviously indicated; but it is not necessary to confine patients to the recumbent posture; for in the act of sitting there is no stress on the femurs, the body resting entirely on the tuberosities of the ischia. Let these individuals then choose a profession which they can exercise when seated. Our author advises, likewise, the use of the cold bath, and the application of a bandage which encircles the pelvis, confines the trochanters, and keeps them of an uniform height, thus binding the ill-adapted parts together, and preventing that continual motion to which they are exposed. This practice, though it certainly will not cure the complaint, will give a great degree of support to the hip-joints, and prevent the progress of the displacement.

In the course of eighteen years, M. Dupuytren has met with twenty cases of this kind, seventeen or eighteen of which have been females.

On the Club-foot.

This is a very frequent malformation. The Baron's observations upon it are brief, and are chiefly intended to urge practitioners to endeavour to remedy it early in life. There is no complaint, according to the Baron, in which a "stitch in time" is more necessary or more useful.

There appears to be three varieties of distorted, or club-foot. The most

frequent is that to which the name of *varus* was anciently given. The point of the foot is directed inwards, and the sole is upturned in a similar direction, the patient walking on the outside of the foot, or sometimes even on a portion of its dorsum. The second variety, formerly called *valgus*, is much less frequent than the former; in it, the foot is turned downwards. In the third form, the toes are turned absolutely backwards, and the whole of the foot is so reversed, that the patient walks completely on its dorsum.

The essential cause of all these malformations is luxation of one of the bones of the tarsus, the ligaments and muscles being only consecutively altered. The causes which favour or occasion these anomalies, during uterine existence, have attracted much attention; but received no elucidation. In fact, we know nothing whatever about them. The external symptoms and the anatomical condition of the interior, have fully occupied anatomists and surgeons; but, none, observes the Baron, have accurately pointed out the changes that ensue in the affected limb.

The malformation may be limited to one foot, or occupy both. When the latter is the case, both limbs are usually equally developed, and nothing further need be said about them. When one foot is affected, the consequences are as follow.

In proportion as the individual grows older, the limb of the deformed side wastes. The cause is apparent; the patient instinctively employs the sound foot more than the diseased one, and the muscles and other tissues waste, or rather they do not sufficiently increase, because they are not proportionately used. Wasting of the muscles may, indeed, be remediable, but another and more serious effect is observed. The bones do not attain the same length on the affected, as on the unaffected side. As life advances, the difference is more marked. At birth, it is not present—at the age of ten years it has been very evident—at twenty, it is such as to set at defiance all remediable efforts. If the bones are shortened, the muscles and tendons must be shortened also. The tendo Achillis, at manhood, is so contracted as to render a high-heeled shoe indispensable, were the foot restored to its natural direction.

It is on these accounts, that the Baron impresses on surgeons and on parents, the paramount necessity of early attention to this ungainly malformation. Treatment in time is the only treatment. In infancy, the tissues are yielding and soft, and the foot can be placed in its natural relations without difficulty and without pain. As infancy recedes, the difficulties rise, and after a season become insurmountable.

And this, as we said before, is the sum of the lecture.

On Laceration in the Centre of the Perinæum during Labour.

M. Dupuytren commences by observing, that rupture of the posterior commissure of the vulva, extending more or less into the perinæum, is a very frequent accident in labour. Sometimes the laceration is greater, involving the lower half of the posterior wall of the vagina, the whole extent of the perinæum, the sphincter of the anus, and the anterior wall of the rectum, to a certain height. But this is not the lesion that forms the subject of the

present lecture; it is laceration of the central portion of the perinæum, without injury of the sphincter ani, or of the commissure of the vulva: through this laceration the fœtus is propelled.

It might, ā priori, appear impossible for a body, of the bulk of a fœtus and its appurtenances, to pass through an opening confined to a space so limited as the perinæum of the female. What reason might reject, experience has confirmed. M. Dupuytren, or his reporters, adduce a long and an imposing list of names, as evidence in favour of the fact. Nédey, a surgeon of Besançon—Coutouly—Dr. Denman—Dr. Joubert—Meckel—Dr. J. Douglas—Moschener—Frank—Moreau, and others, are severally quoted, and their cases cited. For these details, interesting as they are in connexion with each other, we refer the curious reader to the lecture itself, and proceed to relate the particulars of a case which occurred in the wards of the Hôtel Dieu.

Case. Mad. B. æt. 38, was seized with the labour-pains of her first confinement in the morning of Sept. 3d, 1832. The child presented with the head in the first position, and labour went on well till the occiput appeared at the vulva, which was very narrow. Four hours after the commencement of the pains, two severe ones occurred, and the midwife felt a laceration of the perinæum take place under her hand, which was occupied in supporting it; at that instant, the head and the body of the fœtus issued at the aperture. The parts, it should be mentioned, were exposed in such a manner, that the midwife could distinctly see all that occurred. The child was born, and the cord and placenta were afterwards removed through the laceration. No hæmorrhage ensued.

Nothing was done until the tenth day after the confinement, when M. Guersent, jun. was consulted. He employed, in succession, lotions of the chloride of soda, the potassa fusa, the suture. For five days, the wound was united by the latter, excepting only a small fistulous point near the rectum. The suture was removed, and, in two days, the union was totally destroyed by some exertion of the patient.

On the 6th of October, the patient entered the Hôtel Dieu. The opening of the vulva was found to be situated remarkably forwards, a circumstance deserving of attention. Behind the vulva, and a little to the left, was another opening, irregularly rounded, and capable of admitting the extremities of the three fingers. The commissure of the vulva between them was perfect. Behind the lacerated opening was the anus, the sphincter of which was perfect also.

Such was the fact, and, after a few oratorical exclamations, M. Dupuytren goes to work in good earnest to explain, to comment, and to speculate. Persons in midwifery-practice, says he, will often have occasion to remark, that the vagina is placed very high and near the pubes, while the perinæum is proportionably lengthened. The vulva in these cases is contracted, although the vagina may present its natural dimensions. The diminution in size of the vulva results from the elongation of the perinæum, which latter may close a fourth, a third, or even so much as a half of the former. In females presenting this malformation, the finger, in exploring the vagina,

must be carried downwards and backwards, instead of almost horizontally, and any instrument must be introduced in the same direction.

This state of the parts gives rise to several inconveniences. Sometimes it creates great difficulty in connexion—or the menses may be partially retained—or leucorrhœal matter may collect—or, in short, many other annoyances may ensue. The obstacles which it opposes to the process of parturition may be easily conceived. The head of the child, arrested by the narrow opening of the vulva, is directed against the perinæum. If the posterior commissure of the vulva is weak, it gives way—if resistant, the centre of the perinæum yields.

The malformation may either be congenital or accidental, that is, the consequence of cicatrization after burns, or wounds, or lacerations in previous confinements. M. Dupuytren digresses in a slight degree on the treatment of this encroaching perinæum. It must necessarily be divided, and appropriate means must be subsequently adopted to prevent improper cicatrization. In a pregnant female it is better to do this sufficiently early to allow of the formation of a firm cicatrix, prior to the supervention of labour. But circumstances may even render it advisable to divide the perinæum during that process. Dr. Champenois relates a case in which he performed the operation at this period, and prevented further laceration of the perinæum. The cause had been a burn in early life. Dr. Buet has related a curious, and rather a smutty case of accidental contraction of the vulva. A young lady managed to commit a faux pas, which ended in pregnancy—she concealed this, and supported alone a secret and most painful labour, terminating in extensive laceration of the labia and the perinæum. Union of the wound ensued, and occasioned such contraction that the little finger could scarcely be inserted in the vulva that was left. The young lady married, but the husband was unable to consummate the ceremony, on account of the obstinate virginity of his wife. Overjoyed at this proof of maiden chastity, he hastened to a surgeon to pick the lock. The man of art, intrusted by the lady with the sacred secret, divided the cicatrix, and prevented the re-establishment of the contraction by the introduction of lint.

M. Dupuytren observes that the position of the patient exercises an important influence on the presentation of the child. In the case related by Nédey, the woman was seated on the pot-de-chambre, when the birth and rupture of the perinæum occurred. In the instance related by M. Dupuytren himself, the mother was so propt up with pillows, as almost to assume the sitting posture. M. Dupuytren thinks, with M. Moreau, that too great a curvature backwards of the lower extremity of the sacrum and coccyx, or, what is tantamount to this, too decided a projection of the sacro-vertebral angle, must be ranked among the causes of the accident. Other causes may exist in the anatomical relations of the parts, but they have not been sufficiently nor accurately noted, and conjectures would be unsatisfactory and idle.

The last, and not the least important consideration is the treatment to be followed in these cases. The suture failed in the case received at the Hôtel Dieu, but M. Dupuytren feels well assured that it failed because it was withdrawn too soon. In all attempts to unite wounds of this description by

the suture, the latter should be retained for a considerable length of time. A case is related in illustration of this maxim.

Case. Some years ago, M. Dupuytren was consulted by M. Gardien and another physician respecting the case of a young woman, who had been clandestinely confined. A complete rupture of the perinæum had occurred, and involved the lower inch of the anterior wall of the rectum. Several days had elapsed since the occurrence of the laceration. M. Dupuytren united the edges of the wound by the interrupted suture. In the course of a month, the girl was obliged to return to her parents, union not having yet taken place, and suppuration being still abundant. The threads of the suture had not cut through the skin, and M. Dupuytren recommended that they should not be removed until perfect union was obtained. Three or four years after this, a man and woman entered the private room of the Baron, to consult him on a circumstance embarrassing to both parties. The parties had been married, but the husband was unable to consummate the ceremony, in consequence of some difficulty at the entrance of the vagina. M. Dupuytren made an examination of the female, and found she was no other than his quondam patient. Union and subsequent contraction of the ruptured perinæum had occurred, and a firm cicatrix encroaching on the vagina had occasioned the ill-success of the husband. M. Dupuytren prescribed patience and perseverance, and these qualities were attended with their usual success. The female became pregnant, and was delivered without accident.

To return to the case received by M. Dupuytren in the Hôtel Dieu. We left the lady with a central opening in the perinæum, for which the suture had been unsuccessfully employed. M. Dupuytren directed her to recline continually upon her back, and the thighs were secured together by a bandage. The effect of this simple treatment was surprising. The opening contracted and finally closed, and on the 30th of November the patient left the hospital completely cured. The wound was closed, but probably some points yet remained ununited in the part of the vagina adjoining to the perinæum. The patient was enjoined to rest as much as possible, and to avoid connexion, in order that the cicatrization might be firm.

It will be observed by the reader of this lecture, that the Baron offers no novelty in treatment, and scarcely any in description. Yet the subject is deserving of the space we have devoted to it, and the case of laceration in the centre of the perinæum, is at least an addition to those already upon record.

FISSURES OF THE ANUS.

We noticed this lecture in a late number of this Journal. We shall merely observe that the affection is not uncommon, particularly in the tenants of venereal hospitals. We have seen it in numerous instances at the Lock, and there seems some reason to believe that it frequently arises, like anal condylomata, from unnatural connexion.

Fissure of the anus consists in a long superficial ulceration, developed near the margin of the anus, in the radiated folds of the mucus membrane.

On separating the sides of the anus, and making the patient force down, a narrow chink is perceived; its surface red, its edges tumid and callous. The introduction of the finger is often necessary, to ascertain the extent to which it passes. It is situated more frequently on the lateral or posterior, than on the anterior face of the anus, and seldom attacks its whole circumference.

The severity of the affection depends on the spasmodic contraction of the sphincter, which occurs on the contact of the smallest foreign body.*

Division of the sphincter, and the application of the nitrate of silver, are the only remedies productive of advantage. M. Dupuytren, however, assures us, that spasm of the sphincter is the essence of the malady, and ulceration only a secondary phenomenon. He, therefore, aims at removing the former, in the expectation that the latter may then be speedily cured. With this view, he employs the following ointment.

℞. Axungiæ, p. s. vj.
Extracti belladonnæ,
Plumb. acet. āā p. m. j. M.

A tent of moderate size is smeared with this, and passed into the rectum, the size of the former being gradually increased. The constant employment of the ointment for some days frequently occasions complete relief.

For cases and details we refer to the Number of this Journal already mentioned. We cannot forbear from remarking, that the ulcer is more likely to constitute the cause of the spasm, than the spasm to occasion, or even essentially to maintain the ulcer. We have lately tried the Baron's method in these cases. We regret to state that it did not succeed. We found that a single touch of the nitrate of silver did more to allay the spasmodic contraction of the sphincter than any description of sedative or narcotic.

Some Remarks on the Employment of Cauteries and Moxas.

These are erected into a separate clinical article. They may be readily compressed into a very narrow compass. We need scarcely observe, with the accuracy of the Baron, that they occasion pain and produce an eschar, consequences equally obvious and familiar. We shall glance at the situations in which issues are most convenient, and extract a practical remark of the lecturer on the best mode of keeping them open.

The best part in the arm for the establishment of an issue is the slight depression situated at the point of insertion of the deltoid. In the thigh, the most eligible spot is a few finger's breadth above the internal condyle of the femur, over the cellular partition between the quadriceps extensor and the adductors. In the leg, we may select the interval between the internal border of the tibia and the gastrocnemius.

M. Dupuytren recommends, with questionable judgment, that the issue

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* No. 38, p. 542-3.

should be slowly made. The suffering of the patient prompts, and almost compels, the humane operator, to accelerate the work of suffering.

There are two modes of keeping issues open. One is to apply and to retain some foreign substance, as a bean, or a piece of lint; the other consists in the frequent application of the caustic. Mr. Brodie has directed the attention of surgeons to the superiority of the latter method. M. Dupuytren animadverts, like Mr. Brodie, on the disadvantages attendant on the former—on its want of efficacy upon one hand, and the irritation of the system which it sometimes excites upon the other. It is more particularly for the reason last mentioned, that M. Dupuytren condemns this method. But his plan is not identical with that of Mr. Brodie. The latter gentleman keeps the issue *open* by occasional applications of the caustic; the former recommends a succession of issues, allowing one to close before he repeats the cauterizing process. Mr. Brodie's method has these advantages; it is productive of less pain, because the caustic is more lightly used; and probably its efficacy is greater, because the tissue is kept constantly discharging to a certain point.

ABSCESS IN THE RIGHT ILIAC FOSSA.

This, like other articles in the volumes before us, has been noticed in former Numbers of this Journal. Abscess, occurring in the right iliac fossa, has been noticed upon more than one occasion.* We will not omit all notice of the affection, but content ourselves with offering a sketch of the more important facts connected with its history and treatment.

The more frequent occurrence of inflammatory swellings in the right iliac fossa than in the right, would appear to be explained in a sufficient degree by their respective anatomical relations. The cæcum unites with the small intestines in a manner so abrupt, that a remarkable contraction, the ileo-cæcal valve is presented. The food become fæces, has here to ascend against the laws of gravity, and probably is owing to the combination of these circumstances:—The valve, the cæcal cul-de-sac, and the ascending course which the excrement must take, that lodgements of foreign bodies, such as fish-bones, fruit-stones, and so forth, is frequently observed in this part of the alimentary canal. The cæcum is invested only in front by the peritoneum; behind, it is implanted in a mass of loose cellular tissue, which forms its cushion in the iliac fossa, and connects it with the iliac muscle. Such are the anatomical conditions displayed by the cæcum and commencing portion of the ascending colon. On the left side, the arrangement of the colon is different. Its sigmoid flexure is almost surrounded by peritoneum—no contraction of calibre is remarked—the passage of the excrement is promoted by its descent.

It would seem that precursory symptoms are usually experienced prior to the formation, or, at least, to the appearance of the abscess. The patient

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* *Vide* No 19, for January, 1829—p. 217-221.—EDS.

may have committed some imprudences in regimen, and may have suffered from some irregularity of bowels. Constipation, or diarrhœa, or colic pains in the right iliac fossa, may have been remarked for some days or some months, and vomiting may have occurred in connexion with those symptoms. The premonitory symptoms, in short, are vague, and such symptoms occur upon many occasions without any abscess supervening.

Predisposing causes are various and vague. Youth would appear more prone to the disease than advanced or even than mature life; for of sixteen cases carefully collected, eleven were in individuals under thirty years of age. Males are more subject to the malady than females. Autumn and the end of Summer are the seasons in which it is most ripe. The lwo latter circumstances probably are due to the greater excesses and more violent exertion of men than women. Such is not an unlikely explanation, though it does not occur to M. Dupuytren. That this explanation is consistent with the facts will appear when we state that persons in laborious and unhealthy occupations are those most frequently the subjects of the disease. House-painters, colour-grinders, copper-turners, are the artisans enumerated as especial sufferers by the lecturer. Those occupied with sedentary or with literary pursuits have been affected, after labouring under great derangement of the organs of digestion. Peasants or workmen leaving the country to reside in Paris have, in many instances, laboured under this complaint, a circumstance attributed by M. Dupuytren to the miserable fare of the Parisian *ouvrier*, especially in the fine season when employment is scarce.

The symptoms of the disease, when actually established, are not very equivocal. A fixed pain is felt in the iliac region, and circumscribed swelling is probably apparent. On tapping or on pressing the affected part, it is found more tense and resistant than natural, and a tumor may be distinguished, of various volume, of considerable hardness, and displaying more tenderness than any other part of the abdomen, and appearing as if it reposed upon the cæcum. The patient complains of constipation, of colic, and of inability to expel the intestinal flatus by the rectum. Sometimes there is fever; usually the general symptoms are slight.

If the case proceeds, as it usually does, to a favourable termination, the tumor slowly disappears; deep hardness remaining for a lengthened period to indicate the seat of the disease. Of sixteen cases collected and compared by M. Meinière, eleven terminated in this successful manner.

Less fortunate cases do, however, occur. Pulsating pain is experienced in the tumor, which increases in dimensions, becomes softer, fluctuates, and bursts. Happily the abscess opens in many instances into the intestine; when a pressing desire is felt to go to stool, and purulent evacuations from the bowels ensue, accompanied with a diminution of the volume of the tumor. Recovery in such cases is generally rapid. Sometimes the abscess bursts in the bladder as well as the intestine—sometimes it is discharged into the vagina—sometimes it opens on the surface of the body. This latter termination is almost always fatal, and chiefly, perhaps, upon this account:—that the bottom of the abscess is the most dependent part in the usual position on the back, and the matter is consequently prevented from obtaining a free and ready exit. The results are of course the formation and extension of

fresh purulent collections, the introduction of air, and confinement of putrid and noxious discharge.

A curious circumstance is noticed. Purulent matter passes from the abscess into the intestine, and fæces escape from the latter to the abscess. The constant pressure of the abdominal parietes is probably the most efficient agent in producing this exchange of contents.

Sometimes inflammation extends to the peritoneum, or cellular tissue seated behind it. This is a danger to be borne in mind, and calculated to inspire uneasiness and caution in cases which wear the most favourable aspect.

The Baron makes some remarks on the affections with which the present might perhaps be confounded. 1. Inflammatory swellings are sometimes developed in the right or the left iliac fossa, dependent upon inflammation of the iliac fascia. 2. It is not unfrequent after confinement to observe a swelling in the iliac fossa, originating in the round or the broad ligaments of the uterus, and extending to the neighbouring cellular tissue and the iliac fossa. Sometimes such abscesses are discharged into the womb; sometimes they burst into the vagina. 3. The iliac fossæ may become the seat of collections of matter, arising from caries of the neighbouring bones or disease of the contiguous ligaments. This species of collection is soft and fluctuates as soon as it appears, a sufficiently distinctive feature. M. Dupuytren observes, in concluding his notice of these abscesses resembling the one we are considering, that he frequently has witnessed very gross mistakes in the diagnosis of the latter.

The prognosis is not in general unfavourable. Of sixteen patients affected with abscess in the right iliac fossa, one, and one only died. The supervention of peritonitis is usually fatal. The treatment is simple, obvious, and efficient. Local and general bleeding, fomentations, poultices, baths, lavements, and laxative drinks, are the artillery of M. Dupuytren. The name of calomel, that bug-bear of French physic, is not breathed, and the surgeon of the Hôtel Dieu does not hesitate to use the lancet, but dreads to prescribe the pill. In this country calomel with mild aperients would form an important item in the remedies.

For cases illustrative of the description and remarks we must refer to other papers of this Journal.*

Here we must bring this article to a conclusion. In our next we shall resume the review of the third, and enter upon that of the fourth volume of these lectures, and we trust we shall present in a concise, yet sufficiently ample, form, the substance of what is really a valuable work.

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* Several are contained in the Number previously alluded to—that for January, 1829.—EDS.

Pathological and Surgical Observations on the Diseases of the Joints. By *B. C. Brodie*, V.P.R.S. &c. &c. &c. Third Edition, with Alterations and Additions. Octavo, pp. 344. London, 1834.

[Second and concluding article.]

In the last number of this Journal we brought down our analysis of Mr. Brodie's admirable work to the subject of caries of the spine, on which we did not actually enter. It remains for us to place before our readers a digest of the remaining portion of the volume, consisting of about one hundred pages. Mr. Brodie treats consecutively of caries of the spine—tumors and loose cartilages in the cavities of the joints—malignant diseases of the joints—some other diseases of the joints—and, of inflammation of the bursæ mucosæ.

On Caries of the Spine.

It is scarcely necessary to observe that Mr. Brodie commences his account of a disease, with an enumeration of the pathological changes of which it is made up. He remarks, with reference to the present subject, that opportunities of examining the morbid appearances in a very early stage of disease in the spine are of very rare occurrence. It is evident, however, when the structure of the joints between the bodies of the vertebræ is considered, that they cannot be liable to any diseases, that bear a resemblance to the affections of the synovial membrane which occur in other articulations. But analogy might lead us to expect, what Mr. Brodie's observations have proved to be really the fact, that as two important elements of all joints—cartilage and bone—are present in the spinal column, disease might commence in the one or in the other.

Mr. Brodie has found, in some instances, the intervertebral cartilages in a state of ulceration, while the bones were either in a perfectly healthy state, or merely affected with chronic inflammation, without having lost their natural texture and hardness; but in others it has been manifest that the original disease has been that peculiar scrofulous condition of the bones, the effects of which in the bones and joints of the extremities have been described at length in the chapter with which our notice was concluded in the last number.

Mr. Brodie relates six cases, displaying the morbid alterations, of which the sum gives the history of the disease. He then presents a summary recapitulation of the facts, to which we shall direct our attention first.

In some cases caries of the spine has its origin in that peculiar alteration of the bone, described by Mr. Brodie under the term of scrofulous disease of the joint. Ulceration, in these circumstances, may begin on any part of the surface, or even in the centre of the bone, but in general the first effects of it are perceptible where the intervertebral cartilage is connected with it, and in the intervertebral cartilage itself.

In other cases the vertebræ retain their natural texture and hardness, and the first indication of the disease is ulceration of one or more of the intervertebral cartilages, and of the surfaces of bone with which they are connected.

There is still another order of cases. but these are of more rare occurrence, in which the bodies of the vertebræ are affected with chronic inflammation, of which ulceration of the intervertebral cartilages is the consequence.

In whichever of these ways the disease begins, if not checked in its progress, it proceeds to the destruction of the bodies of the vertebræ and intervertebral cartilages, leaving the posterior parts of the vertebræ unaffected by it; the necessary consequence of which is, an incurvation of the spine forward, and a projection of the spinous processes posteriorly.

At this period of the disease the membranes of the spinal chord sometimes become affected with a chronic inflammation, which may extend even to the spinal chord itself; and where there is much incurvation, the latter not only becomes incurvated with it, but actually compressed in such a manner as cannot fail to interfere with the due performance of its functions.

Suppuration sometimes takes place at a very early period; at other times, not until the disease has made considerable progress. The soft parts in the neighbourhood of the abscess become thickened and consolidated, forming a thick capsule, in which the abscess is sometimes retained for several successive years, but from which it ultimately makes its way to the surface, presenting itself in one or another situation, according to circumstances.

In the advanced stage of the disease, new bone is often deposited in irregular masses on the surface of the bodies of the neighbouring vertebræ, and where recovery takes place, the carious surface of the vertebra above coming in contact with that of the vertebra below, they became united with each other, at first, by soft substance, afterwards by bony anchylosis. The disposition to anchylosis is not the same under all circumstances; it is much less where the bones are affected by scrofula than where they retain their natural texture and hardness; and this explains wherefore, in the former class of cases, a cure is effected with more difficulty than in the latter.

Occasionally, portions of the ulcerated or carious bone lose their vitality, and, having become detached, are found lying loose in the cavity of the abscess. It is scarcely necessary to add, that the existence of such exfoliations is of itself almost sufficient to preclude all chance of the patient's recovery." 245.

Mr. Brodie remarks in continuation, that caries of the spine may originate in what may be considered as causes from without. It may be produced, for instance, by the pressure of an abscess of the neighbouring soft parts—of an aneurism of the aorta—of any kind of tumor. In such cases, the intervertebral cartilages are in general found to be little, if at all affected, and they project, perhaps of their natural size, while the bones themselves are in a great degree consumed. Where the spine is thus rendered carious consecutively, the symptoms are usually obscure, and the spinal disease is for the most part unsuspected.

Not unfrequently, caries of the spine itself is complicated with caries from external pressure. For example, disease of the vertebræ, or intervertebral cartilages, occasions caries, and this is followed by the formation of abscess. The matter having become accumulated in considerable quantity, the abscess occupies a large space; and by its pressure on the surfaces of the vertebræ in the neighbourhood, causes an extensive caries of them far beyond the boundaries of the original disease.

We shall now select from the cases which Mr. Brodie relates, such particulars as support the preceding observations.

Case 1. (LXII.) A girl, eight years of age, died in the year 1808, in the infirmary of the parish of St. George, Hanover Square. She had been an in-patient on account of disease of the spine, the spinous processes of the

dorsal vertebræ forming a preternatural projection posteriorly. Abscesses had also burst in the groin.

On examination of the body, there was found at the posterior part of the abdomen a confused mass of soft substance, which proved to be the parietes of an abscess communicating with the orifices in the groin. The bodies of the lowest dorsal and three superior lumbar vertebræ were found at the posterior part of the abscess, nearly consumed by caries. There were no remains of the intervertebral cartilages between the tenth and eleventh dorsal, nor of those between the third and fourth lumbar vertebræ. These intervertebral spaces were filled with pus, and the opposite surfaces of the vertebræ were carious, but only to a small extent. The central part of the intervertebral cartilage between the ninth and tenth dorsal vertebræ had been completely absorbed, and pus was found in its place. Externally to this, the concentric layers of elastic cartilage were entire, though somewhat altered from their natural appearance.

In the next case, (Case LXIII.) besides extensive caries of the dorsal vertebræ and ulceration of the inter-vertebral cartilages, the latter intervening between the third and fourth, fifth and sixth, seventh and eighth, tenth and eleventh dorsal vertebræ, and also that between the eleventh dorsal and first lumbar vertebræ were found in a perfectly natural state towards their circumference, but of a dark colour in the centre. On the surfaces towards the bones they, as well as the bones themselves, were in a state of incipient ulceration, but without any appearance of pus having been secreted. The bones of the vertebræ had everywhere their natural texture and hardness.

Case 3. (XLV.) A girl, aged 19, was admitted into St. George's Hospital, on the 30th May, 1821, with violent pain in the left leg, from the knee to the foot. Previously to her admission she had suffered from pain in the loins, which was relieved by cupping. Soon after her admission this symptom returned, accompanied with a tumor in the loins on the right side. Sixteen ounces of matter were discharged from this by puncture, hectic symptoms were established, and on the 3d of August she died.

On dissection, the bodies of the three or four inferior lumbar vertebræ were found preternaturally vascular, and of a dark, and almost black colour; but they retained their natural texture and hardness, and had undergone none of those changes which mark the existence of the scrofulous affection of the bones. The intervertebral cartilages were in a natural state; but the body of one of the vertebræ was superficially ulcerated for about the extent of a sixpence on one side, towards the posterior part. A large abscess communicated with this ulceration, and occupied the situation of the psoas muscle of the left side, extending downwards to the groin.

Case 4. (LXVI.) A man, aged 45, was admitted into the hospital with an abscess in the left groin. On being confined to the horizontal posture this disappeared, and then presented itself over the left os innominatum. Forty ounces of pus were discharged from this by puncture. The patient died exhausted by hectic.

On dissection, it was found that the cancellous structure of all the dorsal and lumbar vertebræ was of a dark red colour, and softer than natural, so

that they might be cut with a common scalpel, or even crushed by the pressure of the thumb and fingers.

The opposite surfaces of the bodies of the second and third lumbar vertebræ, and of the cartilage between them, at the posterior part, were extensively destroyed by ulceration. Anteriorly, the bones and the intervertebral cartilage were entire, and the latter was in a perfectly natural state; but the bones throughout were of a dark and almost black colour.

On one side of the body of the twelfth dorsal vertebra, there was a small ulcerated spot, forming an epening which extended itself into a small cavity in the centre of the bone. This bone was also of a black colour; but the intervertebral cartilage belonging to it, as well as the intervertebral cartilages connected with the other vertebræ, were in a perfectly natural state.

These cases appear to be sufficient to display the principal pathological features of caries of the spine. On the one hand, they seem to shew that the intervertebral cartilage may constitute the primary seat of the disease; on the other, it is observed to be limited to the bone. It may be noticed that, in one case, the vertebræ were softened, as in scrofulous disease of the bones of the extremities. In two other cases related by Mr. Brodie, caries of the spine was co-existent with tubercles in the lungs, and with other marks of the strumous constitution. In one of these instances, the vertebræ retained their natural hardness, but appeared to be less vascular than natural; in the other, the bodies of the vertebræ were softened, and the cancellated structure of the ribs was filled with a curdly matter.

We may now proceed to the consideration of the symptoms of caries of the spine.

Mr. Brodie regrets that he is unable to offer diagnostic marks of a satisfactory description, between ulceration of the intervertebral cartilage and caries of the body of the vertebra. As caries of the latter is the common consequence of both, it might have been anticipated that a certain similarity would attend their symptoms. This anticipation appears to be borne out by facts. Mr. Brodie, however, hints his suspicion, that the following considerations may in some degree enable us to determine, or rather to suppose, the actual nature of the case.

"I suspect that, where the disease is of scrofulous origin, affecting the cancellous structure of the bones, it is more immediately followed by suppuration, than where it commences in the form of ulceration of the intervertebral cartilages; and that in cases of the latter description the pain and tenderness in the situation of the carious portion of the spine is more considerable than in those of the former." 247.

It must consequently be understood that, when Mr. Brodie speaks of the symptoms of caries of the spine, his observations are intended to be applicable to the various cases of this description, excepting only those in which the alteration is a secondary result of the pressure of a tumor in the neighbourhood.

Caries of the spine is most frequent in those whose constitutions were originally weak, or whose bodily powers are in any way impaired. Sometimes the patient has previously enjoyed good health.

Mr. Brodie remarks that two orders of symptoms may be the results of this disease, independently of the effects which, in its most advanced stage,

it produces on the general system. The symptoms in question are, first, those which are the immediate consequence of the morbid condition of the vertebræ themselves, and of the intervertebral cartilages; and, secondly, those which arise from pressure on the spinal chord, or from irritation propagated to it, or to the nerves arising from it.

The symptoms of the first class are briefly enumerated by Mr. Brodie.

"1st. Pain and tenderness in the situation of the carious vertebræ.

2dly. Curvature of the spine forward, with an angular projection of the spinous processes posteriorly, the result of the bodies of the vertebræ having been destroyed, while the other parts of these bones remain entire.

3dly. Abscess commencing imperceptibly, but at last presenting itself as an external tumour." 249.

The second order of symptoms may be stated thus.

"4thly. Pains, loss of sensation, coldness, muscular spasms, and paralysis of the extremities.

5thly. Derangement of the functions of the various viscera, which are capable of being influenced by that portion of the spinal chord which is implicated in the disease. 249.

To the observations which succeed, we entreat the active attention of our readers. Indeed, the whole chapter on caries of the spine is a happy illustration of Mr. Brodie's method and style. The essence of a long experience and of patient observation is filtered through a close analytical process, and presented in the most concentrated form that the operations of a philosophical mind can effect. Were there many such chapters in many such works, the satire of D'Alembert on authors would be idle,* and the task of the critic would be vain. The latter could condense little, and condemn not at all, and, like Ramsay's shepherd, he must—

Break his pipe, and never whistle mair.

To return to the symptoms of caries of the spine. Mr. Brodie remarks that the whole of those enumerated above are not observed in every instance, nor do those which exist always shew themselves in the same order. They are modified and altered by various circumstances to a great extent, and few diseases display, in individual instances, such diversities of form, or require in the early stages more experience and discrimination, to enable the surgeon to form a correct diagnosis.

Mr. Brodie first considers the symptoms of caries, which are common to the affection in different portions of the spinal column. He afterwards particularises those which are peculiar to disease of its individual parts, or, at least, of the three great anatomical divisions.

"In the majority of cases, the first symptom which the patient notices is pain referred to that part of the spine in which the caries exists; at first trifling, but becoming more severe afterwards. The pain is aggravated by any sudden motion of the spine; by percussion, or by a jar communicated to it in any other way; as by stamping on the ground, striking the foot accidentally against a stone, sneezing, or coughing. In the advanced stage of the disease the pain is sometimes so severe, and so easily induced, that the patient cannot bear the slightest movement. Yet, in other cases, there is sometimes no pain in the spine whatever, from the first access of the disease to its termination." 250.

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* L'auteur se tue à alonger, &c.

Mr. Brodie mentions two facts illustrative of the latter observation. In the case of a young gentleman, in whom the disease had been going on for years, and who displayed, on examination after death, a large abscess connected with caries of four or five of the dorsal vertebræ, no pain had ever been complained of. In another instance, the patient had not experienced any pain for the two or three years preceding his decease, and was supposed to have been cured; but, on dissection after death, Mr. Brodie found the bodies of the vertebræ still carious, and an abscess containing half a pint of matter in connexion with them.

As a general rule, pain precedes the appearance of curvature, for a period which varies from three months to two years, and is sometimes even longer than this. It is referred to the affected part. Where pain in the early stage is wanting, a circumstance which, on the whole, is rare, there is usually some derangement of the general health, weakness of the extremities, or other symptoms, shewing that the patient labours under some kind of disease, without indicating its exact nature and locality.

The distortion of the spine in these cases is peculiar. It forms an angle projecting backwards, an alteration which can only be effected by destruction of the bodies of one or more of the vertebræ. The curvature is in general gradually established. A young woman, however, who had made no previous complaint, experienced, after a slight exertion, a sensation as if something had given way in her back, and immediately afterwards lost the use of her lower limbs. This was followed by an angular projection of the spinous process of one of the inferior dorsal vertebræ, and a large abscess, which presented itself on one side of the abdomen; and the patient ultimately died. In another case, after the curvature had taken place, the form of it appeared to vary, in consequence of the diseased vertebræ admitting of being moved to a certain extent on each other; these motions being attended with increased pain, both in the spine and in the lower extremities. This patient ultimately recovered.

"Curvature of the spine in the direction forwards may arise from other causes, as a weak condition of the muscles, or a rickety affection of the bones. In general, in such cases, the curvature occupies the whole spine, which assumes the form of the segment of a circle. At other times, however, it occupies only a portion of the spine, usually that which is formed by the superior lumbar and inferior dorsal vertebræ; as I have ascertained, not only by examinations during life, but by dissection after death. Here the curvature is always gradual; never angular; and thus it may be distinguished from the curvature arising from caries. Nevertheless, I am satisfied that these different kinds of curvature, arising from different causes, have frequently been confounded with each other; and that some of the cases which have been published as examples of caries of the spine, and in which it may, at first, be a matter of surprise that so complete and so speedy a cure has been effected, have in reality been cases of an entirely different malady."* 253.

Mr. Brodie has already stated that suppuration appears to take place at an earlier period, in cases in which the disease originates in the bone, than in those in which it begins in the intervertebral cartilages. In cases of the

* Some excellent observations on this subject have been published by Mr. Earle, in the Edinburgh Medical Journal for January, 1815.

latter kind, the disease will sometimes proceed to a remarkable extent without the formation of abscess, a circumstance extremely fortunate for the patient, as his chances of recovery are greatly increased by it. But an abscess frequently exists, although no external signs of it are present. We frequently find evidence of this on dissection.

Caries of the vertebræ not uncommonly goes on for two or three years, before there are any certain indications of abscess. In one case, in which the disease was in the lumbar vertebræ, an abscess appeared in the groin at the end of eight years; and in a case of disease of the dorsal vertebræ, sixteen years formed the lengthened interval.

The formation of abscess is usually attended with some derangement of the general health—slight fever—loss of flesh—perhaps rigors. These symptoms may at first be relieved in some degree by the bursting of the abscess, but they afterwards recur in an aggravated form—the patient wastes under the influence of hectic—and some kind of fatal visceral disease is established.

Mr. Brodie next considers the peculiar symptoms produced by the affection of one or other part of the vertebral column.

When there is caries of the cervical vertebræ, the patient complains at first of pain in the neck, which is aggravated by every motion of the head, and which is not unfrequently mistaken for the muscular pains and stiffness connected with what is commonly called a stiff neck from cold. The pain gradually increases, and Mr. Brodie has found it more liable to be severe, than when the seat of the disease is in the lower part of the spine. When the spine has become incurvated forward, the angular projection posteriorly is observed to be trifling, except when the seventh cervical vertebra is implicated in the disease; a difference easily explained by the length of the spinous process of that vertebra.

Abscess connected with diseased cervical vertebræ usually presents itself among the muscles on the side of the neck. Occasionally it breaks into the pharynx. Mr. Brodie has seen one case in which it penetrated into the theca vertebralis, and the whole spinal chord was bathed in pus.

"At an early period of the disease, the patient frequently complains of pains in the arms and shoulders. After some time these pains subside, but they are followed by complete paralysis of the upper extremities; while the muscles which derive their nervous influence from the spinal chord below the neck remain subject to the will. In a still more advanced stage of the disease, the paralysis extends to the muscles of the trunk and of the lower extremities. Then there are pains in the abdomen, which becomes distended and tympanitic; the bowels being at the same time obstinately costive. In all cases, there is pain in the occiput and temples; which is, however, most severe when the disease is situated in the two or three superior vertebræ. Not unfrequently the transverse ligament of the second vertebra is destroyed, and the consequence is, a dislocation of the odontoid process. Sometimes the dislocation is complete, and the patient, from the pressure made on the spinal chord, expires as suddenly as if the latter had been divided transversely. More frequently it happens that the displacement of the odontoid process is somewhat restrained by the pressure of the dura mater which lies over it. There is then some degree of pressure on the spinal chord, sufficient to excite irritation, but not sufficient to destroy its functions. Under these circumstances, the patient complains of increased pain in the head, followed by convulsions, stupor, dilated pupils, and other symptoms of effusion of fluid on the brain; and on examining the body, after death, we find

that such effusion has actually taken place, there being a collection of fluid in the ventricles, or in the base of the cranium, or in both of these situations." 266.

In cases of caries of the superior dorsal vertebræ, besides the usual pain and tenderness of the affected parts, the patient complains of pain and a sense of constriction in the chest; and when the disease is in the inferior dorsal vertebræ there is a similar sensation in the epigastrium, pain in the abdomen generally, and a disturbed state of the functions of the alimentary canal. Occasionally the urine is alkaline, or contains albumen, from which circumstance, in connexion with the existence of pain in or near the region of the kidney, it is sometimes difficult to determine, in the first instance, whether the patient labours under caries of the spine, or disease of the kidney.

When the spine is incurvated forwards, in consequence of the destruction of the bodies of the dorsal vertebræ, the angular projection behind is more distinct than where the lumbar or cervical vertebræ are affected. This is owing to the length and disposition of the dorsal spinous processes. When the curvature is considerable, the thorax is altered in figure, its diameter from above downwards being diminished, while its other diameters are increased. When the superior dorsal and inferior cervical vertebræ are both implicated in the disease, a large protuberance presents itself between the superior angles of the scapulæ, and the neck appears shortened, as if it had descended or sunk between the shoulders.

As the disease advances, the patient, in some instances, complains of pains, which are referred to one groin and hip. This circumstance not unfrequently occasions an error in diagnosis on the part of even practical surgeons. Afterwards pains, and a sense of constriction, are felt in the legs and thighs. Then the muscles are found to be not properly under the dominion of the will, so that the patient occasionally loses a step, or trips in walking. This is probably followed by a complete loss of voluntary power. In some cases there is an entire paralysis; the muscles of the lower extremities never acting under any circumstances; while in other cases, although they do not act under the influence of volition, they are subject to involuntary contractions or spasms. Occasionally, but rarely, the loss of voluntary power is attended with a total loss of sensibility. Paralysis of the bladder, and incontinence of the urine and fæces, sometimes accompany paralysis of the lower limbs.

"A considerable time generally elapses before abscess connected with caries of the dorsal vertebræ presents itself externally. Sometimes it shews itself on the posterior or lateral, or even on the anterior part of the chest, having penetrated through one of the intervertebral spaces. More commonly it makes its way downwards through the posterior mediastinum, and behind the small muscle of the diaphragm; and then, taking the course of the psoas muscle, passes behind the crural arch, and shews itself in the anterior and upper part of the thigh. It is not uncommon for the abscess to form a large tumour on one side of the abdomen, occupying the whole, or a great part, of the space between the false ribs and the groin, pushing the viscera to the opposite side, and, at last making its way to the surface through the abdominal muscles. But a great length of time may elapse before it reaches this termination. I have known such an abscess to remain neither increasing nor diminishing in size, nor being materially changed in its situation, for several successive years: in some in-

stances being a soft and compressible tumour, in which the fluctuation of matter was distinctly perceptible; in others, appearing like an irregular mass of solid substance, closely attached to the posterior and lateral parts of the spine." 260.

When the lumbar vertebræ are affected with caries, there is usually pain in the region of the loins, which is aggravated by stooping, by suddenly turning round, or by percussion. Sometimes the pain is confined to the vertebræ themselves; at others, it extends to the sides of the abdomen and the crista of the ilium.

When an abscess is formed, it usually either descends in the direction of the psoas muscle, and appears in the upper and anterior part of the thigh—or, passing by the outer edge of the quadratus lumborum and sacro-lumbalis muscles, it shews itself on one side of the loins—or in some rare cases, it takes the course of the spermatic chord, and projects through the abdominal ring, where a superficial surgeon might readily mistake it for a hernia—or, descending into the pelvis, it follows the direction of the great sciatic nerve, and proceeds to the posterior part of the thigh. It may reach this situation in another way. Mr. Brodie has known an abscess which, originating in the loins, had presented itself in the groin, disappear from this part suddenly, and, after an interval, be discovered in the posterior part of the limb, behind the lesser trochanter. In a case of this description, Mr. Brodie ascertained, on examination after death, that the abscess had taken the course of the psoas and iliacus muscles to their insertion, and had afterwards extended backwards over the inferior edge of the quadratus femoris. Mr. Brodie makes the observation, that it is not uncommon for abscess connected with caries of any portion of the spine, to alter its course in this manner. He supposes that this circumstance affords an explanation of some of those cases, in which it has been thought that an abscess has been suddenly removed by absorption.

It very rarely happens that caries of the lumbar vertebræ proceeds to the extent of occasioning a perceptible alteration in the figure of the spine. This is easily accounted for by the anatomical formation of those vertebræ. This last consideration will enable us to understand another peculiarity of caries of the lumbar vertebræ—the absence, in the majority of cases, of pains, muscular spasms, paralysis, and loss of sensibility in the lower limbs. In these cases, the thickness of the bodies of the vertebræ is commonly sufficient to prevent the caries from reaching the theca vertebralis. In one case, in which the patient *did* complain of numbness of the legs and thighs, Mr. Brodie found, on dissection, that the *theca vertebralis* was in no part exposed; but that there was a large abscess on each side, surrounding the origin of the anterior crural and obturator nerves, and thus explaining the diminished sensibility of the parts to which they were distributed.

"In systematic works on surgery, the lumbar or psoas abscess is usually described as if it were (in some instances at least) a specific or primary disease, having its origin in the psoas muscle. But, according to all the experience which I have had in these cases, this is altogether a mistaken view of the subject. I cannot say that such an abscess never takes place in the loins; but I certainly believe that it is of very rare occurrence. In examining cases of lumbar abscess after death, I have always found caries of the vertebræ, in which the abscess has manifestly originated. In general the disease of the vertebræ has been so obvious, that it could not have been overlooked by the most superficial observer; but, in some instances, the real nature of the disease has not been detected until

after a careful dissection. In one instance, on examining the body of a patient who died in St. George's Hospital with an extensive suppuration in the loins, the soft parts having been entirely removed, not the smallest appearance of disease presented itself in the lumbar vertebræ, and I conceived that I had at last met with a case of genuine psoas abscess; when, almost accidentally, a small opening was discovered on one side of the spine, in a part which had been covered by one of the attachments of the psoas muscle, just large enough to admit a common probe, and forming a communication between the cavity of the abscess, and one of the intervertebral spaces. On a further dissection, it was ascertained that the intervertebral cartilage had been completely destroyed by ulceration, except at its circumference, and that the opposite surfaces of the bodies of the two contiguous vertebræ were extensively carious." 263.

The consideration of the symptoms of caries of the spine is succeeded by a chapter on its treatment.

This is comparatively obvious and simple. The principal difficulty experienced by the surgeon is in ascertaining the nature of the malady. That determined, the principles which guide his practice are neither obscure nor difficult of application.

It might be supposed that none could be bold enough to call in question the prudence, and few to deny the indispensable necessity of rest in the horizontal posture, and that for a considerable period. Counter-irritation, in the shape of caustic issues, is also a remedy that would readily occur to the mind of the reflecting surgeon. These means, with the administration of the remedies adapted to the general condition of the patient in each individual case, appear to constitute the essential items of the treatment.

From the moment that the nature of the case is ascertained, the patient should be confined to his bed or couch. Where severe pain is experienced in the vertebræ, the patient will readily submit to this discipline; but where the suffering is inconsiderable, the persuasions and the firmness of the surgeon are required to indicate and to enforce its paramount necessity. The bedstead contrived by Mr. Earle will be usually most convenient. Where the disease has existed for a length of time, and much angular curvature of the spine has taken place, the patient should rather lie on his side than on his back, or, if this be disagreeable or inconvenient, he should be so supported by cushions and pillows that the position in which he is may not tend to restore the spine to its original figure. Mr. Brodie adds an earnest and important caution to those who are inclined to meddle with diseased spines, and attempt or affect to remove the displacement by mechanical means, or by manipulation. It is scarcely necessary to expose the ignorant and mischievous absurdity of such persons.

When the disease is situated in the dorsal or the lumbar vertebræ, the patient may be provided with a bandage, including some stripes of whalebone, and somewhat resembling the stays worn by females, but extending as low as the symphysis of the pubes, the os sacrum, and the great trochanter, and as high as the neck. This will operate like splints, fixing the pelvis and thorax in the same relative position. A less efficient support may be given to the cervical vertebræ by means of a cushion adapted to the shape of the lateral and posterior parts of the neck, and extending from the upper part of the back to the occiput.

Mr. Brodie concurs with those who advocate the use, and maintain the advantages of caustic issues. He acknowledges, at the same time, that

some cases occur, in which they appear to be productive of little or of no utility. He seems disposed to think that in diseases of the spine, as in those of the joints, issues are of most benefit where the intervertebral cartilages are affected, and of least advantage where the vertebræ are affected with scrofulous disease. We need scarcely add that the former cases are those in which there is most pain. Mr. Brodie is also of opinion, that issues are applicable to the early stage of caries, and are valueless after suppuration has occurred.

The duration of the treatment is an important consideration. It is difficult to lay down a general rule. The issues may be healed on the first clear evidence of the formation of abscess; otherwise, if they occasion little or no inconvenience, they may be kept open for one or two years. The recumbent position should not be abandoned in less than six or seven months, even when the disease is in its earliest stage; and, in the great majority of cases, the period should be extended to a year, and sometimes to a year and a half.

"In the first instance, the surgeon usually finds it difficult to persuade the patient to continue this part of the treatment for a sufficient length of time after the removal of the more urgent symptoms. Afterwards, however, he has to encounter a difficulty of an opposite kind. This happens especially among young females; who often become at last so habituated to their couch, and the peculiar mode of life connected with it, that they can scarcely be persuaded to make the necessary effort to sit up and move about, even after every reason for not doing so has vanished. I know an instance of a lady, who, under these circumstances, has preserved the horizontal position for twelve years; and in whom nearly all the joints of the lower extremities, in which no actual disease ever existed, have, from mere want of exercise, become firmly anchylosed; so that it seems more than probable that nothing which can now be done will enable her to regain the use of the limbs, or even to sit up." 270.

The treatment of abscesses connected with a carious condition of the spine requires no peculiar observation. As a general rule, the patient should not venture to take exercise, nor even to quit the recumbent posture until the abscesses are healed. But Mr. Brodie mentions the case of a gentleman who had laboured for thirty-two years under well-marked symptoms of caries of the spine:—angular projection backwards, opposite the middle dorsal vertebræ, and sinuses communicating with them in a state of caries. This gentleman, with all this extent of disease, had been able to take violent exercise in hunting and in shooting, and had suffered from no material inconvenience, excepting the loss of the use of his lower limbs for a period of three months; this he regained after the application of blisters to the back.

This concludes the chapter upon caries of the spine—one very valuable, from the practical hints which it contains, to the young surgeon and the old. We proceed to another subject.

On Tumours and Loose Cartilages in the Cavities of Joints.

Mr. Brodie has not much to offer on the subject of loose cartilages in the joints, the complaint having been so frequently described by writers.

In the majority of cases which he has witnessed, no symptoms of inflam-

mation have preceded their appearance. He therefore thinks it probable that in some instances they are generated, like other tumors, in consequence of some peculiar morbid action. They appear to be situated originally, either on the external surface, or in the substance, of the synovial membrane; since, before they have become detached, a thin layer of the latter may be traced to be reflected over them.

"My own experience is much in favour of the removal of these loose cartilages by an incision of the joint, provided that this be done in a cautious and prudent manner. The patient should be kept in a state of the most perfect quietude for two or three days preceding, and for several days after, the operation. The cartilage having been well fixed, the different parts over it should be slowly and separately divided until it is exposed. The wound of the synovial membrane may be dilated by means of a probe-pointed bistoury, until it is of sufficient size to allow of the cartilage being extracted with a tenaculum; and the cut edges of the skin should be instantly replaced in contact with each other, and secured by means of adhesive plaster." 272.

Mr. Brodie has seen two cases in which the loose cartilages were of a different nature from those above alluded to. It occasionally happens that a bony ridge is formed, like a small exostosis, round the cartilages of the joint. In the two cases to which Mr. Brodie refers, this preternatural growth of bone had taken place, and portions of it had been broken off and lay loose in the cavity of the articulation.

Small Pendulous Excrescences in the Knee-Joint.

These spring from the synovial membrane, are numerous, pendulous, have a smooth external surface, and resemble in appearance the appendices epiploicæ of the great intestine, though they do not, like them, contain adipose substance. Mr. Brodie has seen three preparations of this description. With the history of one he is unacquainted—there is reason to believe that long-continued inflammation of the synovial membrane was the cause of the excrescences in another—and in the third, they were accompanied with the collection of a considerable quantity of whey-like fluid in the joint.

Other Tumors in the Joints.

1. In a case of the late Mr. Ewbank's, at St. George's Hospital, a tumor existed within the knee-joint, situated on the edge of the patella and over the external condyle of the femur. It appeared like a loose cartilage, of about the size and form of an almond, and it produced such symptoms as loose cartilage occasions. Mr. Ewbank made a careful incision on the tumor, which proved to be of a gristly structure, and to be attached by one extremity to the synovial membrane, near the edge of the patella. This attachment was cut through, and the tumor was removed. The wound healed, and the patient experienced much relief, but six weeks afterwards a tumor was discovered in the knee of smaller size than that which had been removed, but occupying the same situation. This tumor could be pressed into the joint with the fingers, but did not slip into it in walking. When the patient left the hospital, he did not suffer any inconvenience from it.

2. A young man consulted Mr. Brodie on account of what seemed to be loose cartilage of the right knee. In certain motions of the joint a tumor

presented itself on the inside of the patella, which appeared to be a loose cartilage of large dimensions. The symptoms supported this suspicion He was desirous of an operation. This was cautiously performed by Mr. Brodie. The tumor was found to be of fleshy structure, and to be connected with the synovial membrane, below the patella, by a broad adhesion. Mr. Brodie divided it and removed the tumor. All subsequent precautions were adopted, but violent inflammation supervened, and required very active treatment. At the end of two months, the knee was neither swollen nor painful, but was still incapable of perfect flexion and extension.

"On examining more accurately the tumor which had been removed in this case, it was found to be about two inches and a half in length, and one inch and a half in breadth, and somewhat less than half an inch in thickness in the thickest part; convex on one surface and somewhat flattened on the other. It was of a firm fleshy structure. The general appearance of it a good deal resembled that of the coagulum which is found in the sac of aneurism; but it was not laminated; it had a smooth membranous surface; and it was manifestly organized, as vessels might be distinctly traced ramifying through its substance."

Mr. Brodie confesses that an exact acquaintance with the nature of the tumor in the two preceding cases, would probably have made him pause before he ventured to remove them by an operation. Yet, even with the narrative of those cases placed before us, it is difficult to ascertain the distinctive characters of tumors of this nature. Perhaps, a careful examination might enable us to determine that the tumor does not present the same degree of hardness as cartilage. It is fortunate that the latter is so much more frequent than the former as to render the chance of a mistake inconsiderable.

Of Malignant Diseases of the Joints.

Mr. Brodie observes that the bones are well known to be liable to those morbid growths and alterations of structure, which are usually denominated malignant diseases.

"In the cases which have fallen under my observation, carcinoma of the bones has never occurred as a primary disease, but has always been preceded by carcinoma of the breast or some other glandular organ. The existence of the disease in the bones has been indicated by pains, sometimes slight, at other times most severe, resembling those of deep-seated rheumatism, but not yielding to the use of the remedies by which rheumatic pains are usually influenced. In these cases, the bones themselves become unnaturally brittle, and are so easily broken, that I have more than once known a fracture of the femur to be produced by the patient accidentally turning herself in bed; and, in one instance, a fracture of the clavicle took place on the patient making some slight effort in raising her arm." 280.

Mr. Brodie relates two cases of cancer of the bones. In the first, the head of the femur was affected, and the symptoms in some degree resembled those produced by disease of the hip-joint. The patient had undergone the operation for the removal of a scirrhus breast, and the disease had reappeared in the cicatrix. The femur was fractured at the seat of the disease by a very slight injury immediately before or after death. The whole of the superior extremity of the thigh-bone was softer and more brittle than natural, a change which was most distinct in that part of the head contiguous to

the cartilage. On making a section of the head and neck of the bone, the earthy matter was found to be very deficient, and a cartilaginous or gristly substance was seen blended with the bony structure. In several places there were spots of increased vascularity with a deposition of some cheesy matter in the centre.

In the second case, the alteration attacked the spine. The patient had scirrhus of the breast, and was suddenly seized with paralysis of the whole lower part of the body. On dissection, several of the dorsal vertebræ were converted into a structure closely resembling that of the femur in the last case. The whole of the lower portion of the theca vertebralis was filled with a serous fluid.

Mr. Brodie observes that the bones are much more liable to be affected with fungus hæmatodes than with scirrhus, and that the former frequently occurs in them as a primary disease. Mr. Brodie has seen several cases in which a tumor of this description had its origin in one of the bones of a joint. It is obvious that such in its progress affecting contiguous parts must gradually render the joint useless, and end in its destruction.

"In these cases the patient first complains of a slight degree of pain in the affected part, which is somewhat aggravated by exercise. Some time afterwards the bone is observed to be slightly enlarged. As the tumor increases, it is found to be elastic in some parts, hard in others. For a considerable time it does not interfere with the functions of the joint; which, however, afterwards becomes limited in its motions, and, ultimately, completely fixed in one position. I have never known but one case in which the patient did not submit to amputation before the disease had reached its most advanced stage; and here the skin became ulcerated, and a large ill-conditioned sore was the consequence." 285.

Amputation is the only remedy, and those best acquainted with the results of operations for fungus hæmatodes will most readily appreciate the slender chances of success from even this cruel expedient. Mr. Brodie relates two cases of fungus hæmatodes, in which amputation was performed. In one the lower part of the femur was affected; in the other the head of the tibia was concerned. It is four years since the operation was performed for the first patient, and no return of the malady has taken place. Mr. Brodie does not mention the termination of the second case, but we understand that the patient died with pulmonary symptoms in less than a year after amputation.

OF SOME OTHER DISEASES OF THE JOINTS.

Such is the heading of the ninth chapter of the work. The subjects included in the general designation are the following:—exfoliation of the epiphysis of a bone, as a consequence of acute inflammation—chronic inflammation of the epiphysis, sometimes terminating in abscess in the bone contiguous to the joint—absorption of the cartilages by a process which apparently differs from inflammation—anomalous pains in hysterical females referred to the joints or their vicinity—unusual liability to dislocations of the joints—osteo-sarcoma—a peculiar disposition between the dura mater of the spinal marrow and the bodies of the vertebræ—gouty alteration of a joint—acute ulceration of the cartilages—differences in the length of the two lower limbs. On these various affections Mr. Brodie offers in succession some remarks.

1. *Exfoliation of an Epiphysis from Acute Inflammation.*

Acute inflammation of the shaft of a bone and of its periosteum is usually arrested at the epiphysis. But some instances occur in which the epiphysis itself is attacked, and more or less extensive exfoliation is the consequence. Sometimes nearly the whole of the epiphysis is deprived of its vitality; at other times only one small portion of it, or several are affected. In some of these cases, the exact nature of the disease is sufficiently obvious; but in others, where the exfoliations are of a very small size, it is difficult or impossible to form an exact diagnosis. This is, however, of the less importance, as, under all circumstances, such a disease must terminate in the complete destruction of the joint; so that there is no remedy but amputation.

2. *Chronic Enlargement and Abscess of the Epiphysis.*

Chronic enlargement of the epiphysis from inflammation is not an unfrequent occurrence. It is liable to be mistaken for disease of the joint itself, especially as inflammation of the synovial membrane sometimes ensues as a secondary consequence. The patient may derive benefit from the treatment which is applicable to nodes in other portions of the bones.

Abscess in the centre of the bone contiguous to the joint is another result of chronic inflammation of the epiphysis. This produces excessive suffering, and has occasioned, perhaps frequently, amputation of the limb. Mr. Brodie has advocated the use of the trephine, pointing out the symptoms characteristic of the disease, and the value of the remedy alluded to, by a series of interesting cases. The description of this complaint was originally offered to the public by Mr. Brodie in the 17th volume of the Medico-Chirurgical Transactions. It was fully noticed in the 35th Number of this Journal, that for January, 1833. We must refer our readers to the number in question for a full account of the important observations of Mr. Brodie. We therefore pass on.

3. *Absorption of the Cartilage, independently of Inflammation.*

It is sometimes observed that the bone becomes partially denuded of cartilage, without any marks of inflammation. There is no erosion of the bony surface itself, and the remaining cartilage retains its natural adhesion to it. The patient does not complain of pain in the joint, nor does suppuration follow. These changes are observed more frequently in the bodies of elderly persons; and they are sometimes discovered after death, where their existence had not been suspected during the patient's lifetime. At other times, they produce in the motions of the limb a grating, corresponding to, but less distinct than, the grating which is perceptible after a fracture.

4. *Pains in the Joints in Hysterical Females.*

Instances are not uncommon of pains referred to the large articulations in hysterical females. These cases give rise to much anxiety, yet ultimately bad consequences seldom ensue.

"At first there is pain referred to the hip or knee, or some other joint, without any evident tumefaction; the pain soon becomes very severe, and, by degrees a puffy swelling takes place, in consequence of some degree of serous effusion into the cells of the cellular texture. The swelling is diffused, and, in most instances, trifling; but it varies in degree: and I have known, where the

pain has been referred to the hip, the whole of the limb to be visibly enlarged from the crista of the ilium to the knee. There is always exceeding tenderness; connected with which, however, we may observe this remarkable circumstance, that gently touching or pinching the integuments, in such a way as that the pressure cannot affect the deep-seated parts, will often be productive of much more pain than the handling of the limb in a more rude and careless manner. In one instance, where there was this nervous affection of the knee, immediately below the joint there was an actual loss of the natural sensibility; the numbness occupying the space of about two or three inches in the middle of the leg. Persons who labour under this disease are generally liable to other hysterical complaints; and, in all cases, the symptoms appear to be kept up and aggravated by being made the subject of constant attention and anxiety." 303.

No general rule can be laid down, says Mr. Brodie, for the treatment of cases of this description. In fact, it may be broadly stated, that the measures applicable to the relief of the hysterical condition, are those which are required for this. To make this remark, is to state that the individual case must be studied. In one hysteric female, the menstruation is profuse—in another it is absent or defective; in one the bowels are extremely torpid—in another they are regular; in one the nervous system is peculiarly excitable—in another it is sluggish; in one the circulation is languid—in another the blood-vessels are loaded—in all there are irregular determinations of blood. The practical surgeon or physician must have witnessed these various conditions in females who are subject to the lengthened and the varied train of hysterical disorders. The management of the individual case requires and displays the judgment and resources of the medical attendant.

Some local applications appear to Mr. Brodie to be serviceable. When the pain is most severe, the patient occasionally derives benefit from the use of the following embrocation, applied tepid.

℞. Spiritus rosmarini, ℥iss.
Mist. camphoræ, ℥viss.
M. fiat embrocatio.

Or, a liniment of camphor and belladonna has seemed to be productive of advantage.

℞. Liniment, camph. comp. ℥iv.
Extracti belladonnæ, ℥ij.
M. fiat linimentum.

Mr. Brodie observes that medical treatment is subservient, after all, to moral management. The patient's attention must be diverted from her complaint to other and engrossing objects; she should mix in society; take exercise out of doors, especially on horseback; rise early; and assume in all respects the habits of a healthy person.

"In general, it is not difficult to distinguish the cases which I have just described from those of more serious disease. Careless surgeons, however, frequently fail in their diagnosis; and even surgeons of experience do so in some instances. I do not hesitate to say, that a large proportion of young ladies, who have heretofore been supposed to labour under disease of the hip-joint, and the great majority of those who have been treated as suffering from caries of the spine, have, in reality, been affected with these local hysterical symptoms, and nothing more. Except where there is a question concerning life and death, no error in surgical practice can be more dangerous than this; as it may lead to a

patient being confined to her couch, almost in solitude, for months, or even for years, who ought to be taking exercise, and breathing the fresh air, and partaking of the amusements, and enjoying the society of those of her own age." 305.

Perhaps there are few affections in which mistakes are more frequently committed by the generality of surgeons than in this. Yet its frequency in one form or another renders it a matter of the utmost consequence, both to the surgeon and the patient, that the former should be well acquainted with its nature. We could almost have desired that Mr. Brodie had entered more fully on its history, and had dwelt at greater length upon its symptoms. He might usefully have drawn from his large store of facts and of experience, more particular descriptions and more copious observations for the benefit of the mass of the profession. As it is, we would recommend an attentive study of the brief remarks which Mr. Brodie has offered.

5. *Unusual Liability to Dislocations of the Joints.*

A gentleman twenty-three or twenty-four years of age, consulted Mr. Brodie in the year 1820. He had met with the accident of dislocating the patella four times in the right, and once in the left knee. The right shoulder had been twice completely dislocated, and once there had been a subluxation of the same joint. The joint of the left thumb, with the *os trapezium*, had been dislocated several times. In every instance the dislocation had been reduced with the greatest facility, and generally without surgical assistance. The gentleman was in good health, and no peculiarity could be detected in the form and structure of his joints. His muscles were strong, and he was capable of considerable muscular exertion; he was accustomed to a good deal of walking exercise, but had not been particularly exposed to the ordinary mechanical causes of dislocation.

6. *Osteo-Sarcoma in the neighbourhood of Joints.*

Mr. Brodie relates one case, and alludes to three others, in which this disease fell beneath his observation. The first case was that of a lady. The part affected was the knee, and the tumor attained such a size that amputation was performed by Mr. Thomas. The tumor occupied the upper part of the knee, beginning at the edge of the cartilaginous surface, and extending about three or four inches up the lower part of the thigh. It was interposed between the muscles and the bone of the thigh, so that the former were seen expanded over it. It was of a greyish-white colour; composed of fibres of a gristly semi-transparent substance, with osseous matter intermixed with it, and about two inches in thickness on each side of the femur. At the upper part it was seen distinctly originating in the periosteum; at the lower part the periosteum could not be traced, and the structure of the bone was continued into that of the tumor. The cartilages and ligaments of the joint were free from disease.

Mr. Brodie observes that there can be no question of the original disease being osteo-sarcoma, and of its origin in the periosteum of the femur. In the other three cases alluded to the disease was connected with the hip. The patient appeared to labour under an enormous tumor of this joint. Mr. Brodie was only able to examine one case by dissection. The hip itself was free from disease, and the enlargement was formed by an osteo-sarcomatous growth from the periosteum of the upper extremity of the femur.

7. *Peculiar Deposition on the Spinal Dura Mater.*

Mr. Brodie appears to have seen but one case of this description, and he relates it, not only for the purpose of displaying the peculiar malady, but also with the view of illustrating the observation previously made—that disease affecting the cervical portion of the spinal chord produces paralysis of the upper extremities in the first instance, and of the lower extremities afterwards.

Case. A young man, after leading a very irregular life, and after much exposure to damp and cold was seized, in January, 1829, with a violent pain in the neck, succeeded by considerable swelling. This was chiefly situated on the right side, extending from the head to the shoulder. Although the patient neglected himself the pain and swelling in a great degree subsided. In the beginning of the following April, the upper extremity of the right side became affected with paralysis. Afterwards the opposite limb became, to a great extent, paralytic also. He remained in this state till June, when he came under the care of Mr. Brodie.

"At this time he complained of some degree of pain in the back of the head and neck; and he found it difficult to move the head from one side to the other. An enlargement and induration of the soft parts of the neck was still perceptible in the situation of the original swelling. There was complete paralysis of the muscles of the right arm, forearm, and hand: those of the opposite limb were also paralytic, but some of them were still capable of acting feebly, so that he could take hold of the right hand with the left, and move it from one position to another. The muscles of the lower limbs were feeble, but were capable, nevertheless of supporting the body in the erect posture.

The bowels were very torpid, and the evacuation of a dark colour, a good deal resembling tar in appearance.

The urine was slightly alkaline, but voided without difficulty." 310.

Leeches, a seton, mercury were employed without effect. The lower limbs became paralytic, and, in the latter end of June, the patient died, having previously been comatose.

On dissection, the ventricles of the brain were found to contain about two ounces of watery fluid, and the brain itself was unusually soft. The cervical portion of the spinal chord was also softer than natural.

"A quantity of soft solid substance, of a grey colour, apparently lymph, which had become organised, was found situated between the dura mater and the bodies of the vertebræ, occupying the whole of the anterior and some of the posterior part of the vertebral canal, and extending from the occiput downwards, as low as the fourth cervical vertebra.

A substance similar to that which was found on the inside of the vertebral canal was also found lying on the fore part of the bodies of the cervical vertebræ, extending over the oblique and transverse processes, and communicating with the internal mass by processes extending through the spaces in which the nerves are situated, and surrounding the nerves themselves. The external mass was much larger than the internal, being not only thicker, but extending lower down in the neck. In some parts it was not less than an inch in thickness: in other parts thinner, and, altogether, it was of a very irregular shape." 311.

8. *Gouty Alteration of the Joints.*

These are remarkable. The cartilages are absorbed; the exposed sur-

faces of bone are partially or entirely encrusted with a white earthy matter, apparently lithate of soda; and sometimes they have the appearance of being worn into grooves. In some cases, repeated and long-continued attacks of gout occasion complete anchylosis.

9. *Acute Ulceration of the Cartilages.*

Mr. Mayo has published some cases of this description, and Mr. Brodie has also seen some. Our readers will perceive an account of them in the article contained in the last number of this Journal.

10. *Difference in the Length of the Lower Limbs.*

"It occasionally happens that the two lower extremities are not of precisely the same length; and this may be the result of original formation, the femur and tibia of one side being respectively longer than those of the other side. If the whole of this difference amounts, as it sometimes does, to an inch, or an inch and a half, the individual is observed to limp in walking, and the great trochanter belonging to the longer limb is higher and more prominent than that of the other; and this might lead a superficial observer to mistake the case for one of diseased hip." 313.

In some instances disease is a cause of difference in the length of the two limbs, a diseased bone not keeping pace, in growth, with a sound one. But Mr. Brodie relates a case in which, after necrosis of one femur, the thigh was found by careful and repeated measurement to be an inch and a quarter longer than its fellow. These circumstances should be remembered, as a patient might erroneously be supposed to be labouring under disease of the hip-joint, in consequence of the alteration of the figure of the limb.

We now arrive at the tenth and last chapter. It is dedicated to the subject of inflammation of the bursæ mucosæ.

On Inflammation of the Bursæ Mucosæ.

Under the general designation of bursæ, Mr. Brodie includes, for the sake of convenience, the membranes forming the sheaths of the tendons.

"Inflammation of the bursæ mucosæ is marked by nearly the same characters, and (allowance being made for the difference of the parts with which they are connected) produces nearly the same results as inflammation of the synovial membranes of the joints. In the greater number of instances, it occasions an increased secretion of synovia. In other cases the bursa is distended by a somewhat turbid serum, with portions of coagulated lymph floating in it. Occasionally it terminates in the formation of abscess. Sometimes the membrane of the bursa becomes thickened, and converted into a gristly substance. I have seen it at least half an inch in thickness, with a small cellular cavity in the centre containing synovia. At other times, although the inflammation has continued for a very long period, the membrane of the bursa retains nearly its original structure." 317.

Inflammation of the bursæ may be the consequence of pressure or of other local injury—of abuse of mercury, of rheumatism, or of some other constitutional affection; in the latter cases it is frequently combined with inflammation of the synovial membranes of the joints. Sometimes it assumes an acute, more frequently a chronic form.

The inflamed bursa forms a tumor, more or less distinct, according to its situation; more or less painful, according to the character of the inflammation. If superficial fluctuation is perceptible at first, and if, under these circumstances, the inflammation is considerable, the surrounding parts are implicated, and the skin is red. When the disease has existed for any length of time, the membrane has generally become thickened, sometimes to the extent of making the bursa resemble a solid tumor.

When the inflammation is of long standing, it is not unusual to find floating in the fluid of the bursa a number of loose bodies, of a flattened oval form, of a light brown colour, with smooth surfaces, resembling small melon-seeds in appearance. There seems to be no doubt that these loose bodies have their origin in the coagulated lymph which was effused in the early stage of the disease, and Mr. Brodie has traced the steps of their gradual formation, from irregular masses, of no determined shape, to smaller portions, and ultimately to the flat oval bodies, described. Motion and pressure are the agents of change.

When suppuration takes place in a bursa, the abscess sometimes makes its way directly to the surface of the skin, and bursts externally. But Mr. Brodie suspects that, in other cases, the matter first escapes into the surrounding cellular texture, and the case is then liable to be confounded with those in which the abscess originates in this tissue. Mr. Brodie is induced to entertain this suspicion, from the consideration of the following circumstances.

"There is no bursa more liable to be inflamed than that between the patella and the skin; and inflammation of it not unfrequently terminates in suppuration, as I have ascertained to be the case, both by the discharge of pus, when the tumour has been punctured, and by dissection after death. It is very common to find a large abscess on the anterior part of the knee, which the patient describes as having commenced over the centre of the patella in the situation of this bursa. The abscess has a somewhat peculiar character. It raises the skin from the patella, so that the latter cannot be felt, and from this point as from a centre, it extends itself between the skin and the fascia, equally in every direction, covering the whole of the anterior part of the knee. A superficial observer, judging from the general form of the tumour, and the fluctuation of fluid, without noticing the greater redness of the skin, and the circumstance of the fluid being over, instead of under, the patella, might mistake the case for one of inflammation of the synovial membrane of the joint itself. Such an abscess must be supposed to commence either in the bursa above mentioned, or in the cellular texture. The original situation of the disease corresponds to that of the bursa: there appears to be no reason why an abscess of the cellular texture should occur in this precise spot, more frequently than elsewhere; and hence, it is reasonable to conclude, that the bursa is the part in which the abscess begins. It is not improbable that many other abscesses of the extremities may have a similar origin. The tumour which occurs in the inside of the ball of the great toe, and which is one of those to which the name of bunion has been applied, occasionally suppurates; and I have found, on dissection that this is formed by an inflammation of the bursa, which is here situated." 320.

It frequently happens that, after the inflammation has entirely subsided, a disposition to the secretion of a preternatural quantity of fluid still remains, and dropsy of the bursa is the consequence. Such tumors are very frequent in the neighbourhood of the wrist, and are sometimes confounded with ganglions. The enlarged bursa on the anterior part of the wrist has somewhat

peculiar characters; it is bound down in the centre by the strong annular ligament, which binds down the flexor tendons; and it is prominent above and below, where the superjacent parts afford a smaller degree of resistance. Pressure made on the upper part of the tumor causes the fluid to pass altogether into the palm of the hand, and, in like manner, pressure on the lower part of it causes it to ascend into the fore-arm.

These are all the remarks which Mr. Brodie offers on the history and symptoms of inflammation of the bursæ. He next proceeds to the consideration of the treatment.

In the first instance, this should be guided by the principles which usually regulate our management of inflammatory affections. Leeches, lotions, blisters will be requisite, and colchicum, or such constitutional remedies as appear to be adapted to the individual case, will readily occur to the mind of the experienced surgeon.

When dropsy of the bursa has occurred, the application of a splint or bandages to obviate motion, and of blisters, kept open by the savine cerate, are the best means of promoting the absorption of the fluid. But when the loose bodies resembling melon-seeds, are contained in the bursal cavity, it is necessary to evacuate them by a puncture. Having noticed that the supervention of suppuration, after this trifling operation, was usually productive of a permanent cure, Mr. Brodie has sometimes been induced to procure the suppurative process artificially, by the introduction of a seton or tent into the wound, or by opening the bursa freely, and dressing the cavity with lint. Even where the bursa forms the sheath of one or more tendons, this method may be employed with safety; provided that the bursa has no communication with the cavity of the neighbouring joint.

"We must, however, proceed with caution where the bursa is dilated to a considerable size. Inflammation and suppuration of a large bursa sometimes disturbs the constitution in so great a degree, that it may be doubtful whether it would be prudent, in this instance, to do more than simply puncture the tumour, keeping the patient in a state of perfect quietude afterwards. A large swelling, formed by a cyst distended with serum only, or with serum and masses of coagulated lymph floating in it, occasionally is met with over the inferior angle of the scapula; originating either in the large bursa mucosa, which is interposed at this part between the *scapula* and the *latissimus dorsi* muscle, or otherwise in one of the bursæ of the shoulder, protruding from underneath the muscles by which that joint is surrounded. I had an opportunity of seeing a tumour of this description, which had attained a magnitude not much less than that of a man's head. I understood that the cyst was afterwards punctured, and a seton passed through its cavity, and that so much disturbance of the general system ensued, as to occasion death. I have seen another case, in which death took place in a short time after such a tumour was punctured: but here the patient was otherwise in bad health, and that strict attention was not paid to his being kept in a state of quietude after the operation, which the circumstances seem to have required. I shall give an account of a more fortunate case of the same kind hereafter." 323.

Where the coats of the bursa have become much thickened, there appears to be no remedy but its removal by an operation. This is applicable to superficial bursæ only; for where they envelop the tendons, it would be impracticable, and where they communicate with the cavity of a joint it would be improper. Mr. Brodie has only found occasion to perform it on the bursa which intervenes between the patella and the skin. The readiness

with which new bursæ, or organs which perform their office, are generated in situations in which they are required, would dissipate any uneasiness, were it entertained, respecting the removal of a diseased one.

Mr. Brodie relates five cases, illustrative of the history and treatment of diseases of the bursæ. At these we shall cast a hurried glance.

In the first case, the bursa over the patella was enlarged and contained fluid; but its coats were very little thickened. Ordinary means having failed, Mr. Brodie punctured the tumor, and irritated its interior with the blunt end of a probe. Suppuration ensued, and a cure was effected.

In the second case, the bursa over the inferior angle of the scapula was enlarged to the size of a cocoa-nut. Mr. Brodie punctured it with an abscess-lancet, and discharged about a pint of turbid serum, with some irregularly-shaped masses of coagulated lymph. Suppuration ensued, but, after the expiration of three months, it had ceased, the wound cicatrized, and no remains of the tumor were perceptible.

In the third case, the bursa enveloping the extensor tendons of the wrist was enlarged to about the size of a double walnut, and was filled with fluid. This was discharged by a puncture, but re-accumulated, and Mr. R. Keate made a longitudinal incision in the skin over the tumor, and dissected out as much as possible of the bursa, leaving only that part of it which enveloped the tendons. Suppuration ensued. In a few weeks after the wound had healed, the tumor re-appeared with the same characters as before, but of only half its former size. In that condition it has since remained.

In the fourth case, Mr. Brodie dissected out a thickened bursa from between the patella and the skin. The parietes were more than half an inch in thickness. The patient was cured.

In the fifth case, a tumor, having all the characters of an enlarged bursa, appeared in the site of one which had been removed from between the patella and the skin. Mr. Brodie was compelled to cut into it, and to dress the wound with lint, which measures were productive of a cure.

The last fourteen pages of the work are occupied with a refutation of the arguments of Mr. Key, on the mode in which the cartilages of joints are ulcerated. We have dwelt so much upon this subject, that it does not seem necessary to enter on it again.

Here, therefore, we part from Mr. Brodie. To express our real feelings on the merits of his work might be construed into adulation. We observed at the commencement of our analysis, for a review it has not been, that we held up the book to the medical world as a valuable model. We have placed its substance before our readers—have diffused its accumulated facts—displayed its spirit of philosophical induction; and we venture to indulge the hope, that those of our elder brethren who are not familiar with it will become so, and that every young surgeon will consider it an indispensable ingredient in his library, meagre as his circumstances may compel it to be. It is not merely that the mass of information is great, but the admiring reader observes with gratification and instruction, the application of an original mind to a complicated subject, and the philosophical truth of the inferences elicited by a strict adherence to inductive reasoning. The theorist will seal the merits of the author, by hinting that he displays no graces of fancy, no charms of imagination. Again we recommend every surgeon and physician to purchase this edition.

PHYSIOLOGIE VEGETALE. Par *M. A. P. De Caudolle*, Tome 3. Paris. Béchet Jeune, 1832.

THESE three volumes are devoted to the physiology of vegetables, being a continuation of a work which is to embrace the whole science of plants. In 1827 M. De Caudolle published two volumes on the structure of vegetables; he has now added three others on their vital functions, and if time, health, and inclination permit, he promises to complete the series by discussing the principles of classification, geographical, and fossil botany, and the application of the whole science to the cultivation of plants, and to their dietetic and medicinal uses. He tells us that he has revised this work completely at four different periods; in 1804, when he delivered his first course at the College de France; in 1812, when lecturing at Montpellier; in 1829, when preparing a course of Botany at Geneva; and when bringing out the present volumes. The Royal Society, which numbers among its members many botanists most capable of estimating the value of this undertaking, have very lately shewn their high sense of the estimation in which they hold it, by presenting M. de Caudolle, their gold medal. The botanical student who has had access to adequate libraries, and has experienced the labour which the perusal of many monographs on the same subjects by different writers demands, the confusion produced by opposite statements, and the difficulty of forming any correct judgment on disputed points, will hail with pleasure a comprehensive summary of the actual state of the knowledge of this important branch of physiology, from the pen of one eminently qualified by his learning, opportunities, and industry, to collect facts and experiments relating to vegetable life, and by his practical knowledge of the subject and mature judgment to decide on their real value. For as Montaigne has wisely said, "ce n'est pas assez de compter les expériences; il les fault poiser et assortir, et les fault avoir digérés et alambiguées pour en tirer les raisons et conclusions qu'elles portent."

The arrangement of these volumes is clear and methodical, each section corresponding with another section in the work which preceded it, so as to afford every facility of reference to the description of the part whose vital functions are explained. There are five principal sections; the first is devoted to the general phenomena of vegetable life; the second to vegetable nutrition, including the ascent and descent of the sap, the chemical changes which the atmospheric air undergoes, the various secretions and excretions, with a detailed chemical history of the numerous vegetable principles; the third section explains the reproduction of plants, a subject embracing their generation, gestation, and germination, their multiplication by division; hybrids, varieties, monsters, &c.: the fourth contains an account of certain phenomena common to nutrition and generation; such as abortion, metamorphosis, grafting, the direction of plants or of parts of plants; their movements, temperature, odour, colour, taste, consistence, age, the real or apparent suspension of vitality, transplantation, and temperament: the fifth section comprehends the action of external agents on plants; such as light, electricity, temperature, air, water, and soils, injuries accidental or otherwise, the effects of poisons, the ravages of animals, the influence of parasi-

tical plants on others, and of the proximity of plants of the same species. There are few points in vegetable physiology of more general interest than the changes produced in the atmospheric air, by vegetables, and as M. De Caudolle has given the most lucid explanation of the phenomena that we remember to have read, we will give a condensed abstract of the chapter. Bonnet having placed some green leaves under water where they were exposed to the sun, saw bubbles of air rise from their surfaces. In order to determine whether this air came from the leaf, or the water, he placed the same leaves in the same circumstances under water that had been deprived of air by ebullition, and as no bubbles of air were produced he concluded that the phenomenon did not depend on any action of the leaf itself. This apparently logical experiment, led him however to overlook one of the most important facts in vegetation. Thirty years afterwards, Priestly, when engaged in his experiments on gases, observed the same phenomenon. He however collected the bubbles of air, and by analysis discovered that they were nearly pure oxygen gas. This attracted the attention of vegetable physiologists, particularly of Senebier and T. de Saussure, who proved it to be connected with the most important laws of vegetable life. The conditions indispensable to the production of this gas are, the green colour of the plant, the direct rays of the sun, and the presence of carbonic acid gas in the water. Experiment shews that no parts which are not green, as roots, old trunks, petals, stamens, &c. with but one or two exceptions of coloured leaves, will produce oxygen gas. The green part of the plant must also be alive, for dead plants, although still green, evolve no oxygen. This evolution does not take place unless the immersed leaves are exposed to the direct action of the sun; the clearest diffused light, or the brightest lamps produce no such effect. Finally, all kinds of water are not suitable; the action does not go on if the water has been deprived of air by distillation or by boiling, or if it has been impregnated with nitrogen, hydrogen, or oxygen gases; but, on the contrary, if the water contains carbonic acid gas, then the green leaf, aided by the action of the direct solar rays disengages oxygen. The following experiment of Senebier's, which is one among many hundreds, is conclusive. A branch of a raspberry bush which produced no gas in distilled water, furnished in common water a volume of gas equal to 108 grains of water; and in water charged artificially with carbonic acid gas, a volume of gas equal to 1664 grains of water. From such facts he concluded that the carbonic acid gas dissolved in the water is under the influence of the direct solar rays decomposed by the green parts of vegetables, the leaf most probably fixing the carbon, whilst the oxygen, becoming free, escapes. The same physiologist proved by the following experiment, that leaves also decomposed the carbonic acid which was transmitted to them by the roots, that is, dissolved in the fluid which they absorb from the soil. He placed two branches of a peach tree beneath receivers containing water, the lower ends of the stems which protruded were placed in bottles, one of which contained water charged with carbonic acid gas, the other was empty. The branch whose extremity was plunged in water charged with carbonic acid gas disengaged a quantity of oxygen gas equal to 4815 grains of water, whilst the oxygen gas disengaged by the other was only equal to 2535 grains of water. Thus, nearly half of the oxygen gas exhaled by the first appeared to be furnished by the water in contact with

the leaves, and the other half by that of the water absorbed by the extremity of the stem. This explains why some fleshy leaves give out oxygen under distilled water, as their sap contains a little carbonic acid gas. If deprived of the air they contain by being placed beneath the receiver of an air-pump they then give out no oxygen gas when immersed in distilled water. That the carbon remains fixed in the plant appears from several reasons very probable. 1. This is the only means in the present state of our knowledge for accounting for the deposition of carbon in vegetables. 2. The green matter of leaves contains a great proportion of carbon. 3. Plants deprived of solar light, or etiolated, do not disengage oxygen gas, and contain less carbon than others. Some experiments of M. Goeppert render it probable that the quantity of carbonic acid never augments in these plants during vegetation, so that which was originally contained in the seed from which each sprang, becomes spread through the whole tissue of the plant. As in these experiments the plants have been immersed in water, and therefore placed in an unnatural situation, some physiologists have doubted their conclusiveness under other circumstances, particularly as no difference can be detected in the composition of the air in forests or in deserts. However, the mobility of the air would account for this, and direct experiments have been made to resolve the question. Thus Palmer placed green branches in a vessel containing atmospheric air exposed to the suns rays, and after 10 or 12 hours found an increase of about a fiftieth part of oxygen in the vessel. M. Theodore de Saussure has endeavoured to accomplish the same end by placing vegetables in circumstances more similar to their natural condition. Thus he has grown plants both in the sun and in the shade in an atmosphere containing small and ascertained quantities of carbonic acid, and he has found that in the sun plants flourished in an atmosphere which contained not more than a twelfth of carbonic acid gas, whilst in the shade the smallest additional quantity of this gas was injurious to the vegetation. His most instructive experiment however was the following. He reared many periwinkles from seeds, and by a previous analysis ascertained the average quantity of carbon contained in the young plants of a known weight and size. He placed seven in a receiver containing 7½ per cent. of carbonic acid gas mixed with atmospheric air, their roots being plunged in distilled water, and seven others in similar circumstances with the exception of the air being deprived of all carbonic acid gas. He exposed the receivers to the sun. Six days afterwards he removed the plants, which were uninjured; there was no carbonic acid gas in the first receiver, but 24½ per cent. of oxygen instead of 21. The carbonic acid had thus been decomposed by the periwinkles, but the whole of its oxygen had not been exhaled; the periwinkles themselves were found on analysis to contain 2,28 grains of carbon more than before the experiment, whilst those which had lived in the air deprived of carbonic acid gas had lost a little carbon. Similar experiments on four other plants gave the same result, with some variation in the quantity. The experiments prove that the green parts of plants in the sun decompose the carbonic acid of the air, appropriate its carbon, which increases their solid matter, retain a small quantity of oxygen, and set the rest free. In total darkness this change does not go on, but it is far from improbable that in the diffused day-light the decomposition may take place, although too feebly to be appreciated by analysis. For, 1st, if, as every thing lead-

us to believe, the green colour is owing to the decomposition of carbonic acid gas, the pale but decidedly green hue of those plants exposed to diffused day-light alone, proves that the same action must be going on, although more feebly. M. De Caudolle has also seen etiolated plants become green when exposed to the light of six lamps, without their disengaging a *sensible* quantity of oxygen gas. 2. As plants die when deprived of every means of decomposing the carbonic acid gas of the air, and yet live and often prosper in the shade, it is probable that they must even under such circumstances decompose a small quantity.

De Saussure has discovered that if green leaves are placed in a receiver of atmospheric air during the night the quantity of nitrogen is not sensibly altered, but that some oxygen has disappeared. Fleshy and marsh plants inspire the least oxygen, trees in general more than herbs, and trees with deciduous leaves more than those which are persistent, and young leaves of all sorts more than old ones. This oxygen inspired by the green parts of vegetables during the night does not remain in an elastic state, for neither the air-pump nor heat can disengage it. It does not become incorporated with the solid part of the plant, because the action of the solar light disengages it easily. It appears, then, that at the time of inspiration it is united with the carbon dissolved in the sap, and that it forms there carbonic acid gas, during the night, which is anew decomposed by solar light. The plant then appropriates the carbon, and a small quantity of oxygen, whilst the rest of this gas, mixed with a little azote existing in the tissues, is exhaled in the air during the day.

The relation which those parts of a plant which are not of a green colour hold to the atmospheric air may be reduced to this simple law, that all these organs do not assimilate the oxygen of the air, but both by day and night this oxygen abstracts a portion of their carbon, and thus forms a certain quantity of carbonic acid gas, which sometimes becomes free in the atmosphere, at other times is dissolved, either in surrounding water, or in the water of vegetation, and thus in both cases may be re-decomposed by the green parts. This decarbonization of those parts of plants which are not green appears to be necessary to their health. Trees suffer if their roots are buried so deeply as to prevent the access of the atmospheric air to them. It is partly owing to the same cause that trees whose roots are inundated suffer and die; that light soils are more suitable to vegetables having long roots; that at a certain depth the radicles are protruded horizontally, and not vertically; that the lateral roots are in general nearer the surface of the soil; that roots suffer more from the contact of stagnant water, although richer in nutritive matters than from running water, which brings to them incessantly a little oxygen, and that finally, those roots which live in water-pipes, where there is little oxygen, appear to be obliged to multiply their surface, by pushing out a multitude of little roots in order to abstract a greater quantity of the gas. De Saussure has confirmed these practical results by direct experiments. He placed the roots of young chesnut trees in contact with different gases, and found that those whose roots were plunged in gases deprived of free oxygen, died in a few days, whilst those placed in atmospheric air prospered. The latter diminished the quantity of oxygen gas and formed with it by means of their own carbon a corresponding quantity of carbonic acid gas. Bulbs, rhizomas, and in general the sub-

terranean parts of stems which are not green are in the same condition as roots. Flowers not only part with a portion of their carbon to the oxygen of the air, but exhale a little nitrogen; the quantity varying from 1,500 to 45,500 of their volume. It is well known that carbonic acid gas is formed during germination, and that this decarbonization is necessary to their growth. This action of the air on those parts of vegetables which are not green cannot be considered as a truly vital effect, but as a chemical property inherent in these bodies. Indeed, this action goes on in wood and bark after death; and Rumford has proved by direct experiments, that carbon, which has been considered as one of the most fixed bodies that is known, may become united with oxygen and form carbonic acid gas at a temperature much below that at which carbon will visibly burn. The order of arrangement of this series of composition and decomposition of carbonic acid gas is somewhat obscure. M. De Caudolle proposes the following arrangement as the most natural.

1. The water entering vegetables through their roots is charged with carbonic acid, which is carried along with the sap to the green parts where it is decomposed by the solar light; the carbon is fixed, and the oxygen escapes in the form of gas.

2. The carbonic acid gas which those parts of vegetables which are not green have formed with the oxygen of the air, is partly dispersed in the atmosphere, partly dissolved in the water of vegetation, and carried with this water as it is absorbed by the roots, to the leaves, where it is decomposed.

3. The water absorbed by the roots holds in solution a certain quantity of animal or vegetable matter which contains carbon; this carbon is carried by the sap into the green parts; it continues during the night with the oxygen absorbed by them, and in the morning this carbonic acid formed in the leaves, is decomposed by the solar light, as if carbon could not be usefully deposited in the nutricious juices of plants, unless it was formed by the decomposition of carbonic acid.

4. The green parts which are in contact with air or water charged with a small quantity of carbonic acid gas, abstract it, decompose it, and reject the oxygen. If the quantity is more than a twelfth, it acts on the leaf as a poison.

Thus the result of this extensive function, which may be considered as vegetable respiration, is to fix carbon in the plant, whilst the purpose of animal respiration is to diminish the quantity of the same principle. The eudiometric influence of vegetable respiration on the atmosphere, may, perhaps, after these considerations, be estimated with some exactness. Living vegetables vitiate the air, 1. Because all those parts which are not green form carbonic acid with their own carbon and the oxygen of the air. 2d. Because their green parts absorb during the night a small quantity of oxygen gas. The nitrogen exhaled by the flowers is a temporary and very feeble function, not of sufficient consequence to be taken into account. On the other hand vegetables purify the atmosphere by exhaling during the day a marked quantity of oxygen gas, and at the time of vegetation the days are much longer than the nights. This latter effect is more considerable than the former, for the result of vegetation is to increase the quantity of carbon in a vegetable; now, no molecule of carbon can be fixed there, unless a corresponding quantity of oxygen gas is set free in the air. De Saussure

has confirmed this by experiment. He introduced a small branch covered with leaves and still connected with the tree, into a large round bottle of air, the mouth of which he closed. At the end of two or three weeks the air in the bottle was found to contain a greater quantity of free oxygen than before the experiment.

"Thus, experience as well as theory tends to prove, that living vegetables augment daily the quantity of the free oxygen gas of the atmosphere. This is a compensation for the oxygen absorbed in combustion, in animal respiration, and by dead or dying vegetables. The winds unceasingly mix together every part of the atmosphere, so as to make the whole homogeneous, although in certain places one of these functions may be more active than the other. It is by this mechanism that a fixed quantity of oxygen is maintained in the atmosphere, and thus from the humble functions of vegetable life we are led to the exalted contemplation of the universal order of the world."

This extract will give a general notion of the lucid and complete manner in which M. De Caudolle treats his subject; a subject which has excited, we are sorry to say it, very little general interest in this country. There is some truth in what are called popular prejudices, and unquestionably there is a very common disposition to call in question the advantages of the study of botany. If there are any good reasons for this prejudice, they are derived from the mistaken object for which this study is pursued too often. How many after having collected specimens of every species of plants in their neighbourhood, and having pressed them, neatly pasted them on paper, and written beneath them their Latin names, think that they have accomplished all that their opportunities will allow them, and flatter themselves that they are good botanists. But what have they acquired? A knowledge of the shape of the flowers and leaves, and of the number of the pistils and stamens of a few hundred indigenous plants, the first step perhaps to a knowledge of botany, but no more capable of making a botanist in the philosophical acceptation of the term, than would the study of the words in Walker's Dictionary or a Greek Lexicon be sufficent to make an English or a Greek scholar. A similar error is indeed often made in the study of languages; the acquirement of the language itself being considered the ultimate object, and not the stores of knowledge which such an acquisition may put at the student's disposal. This is, as an acute writer has said, making language not the instrument but the end of instruction; as the negro worships his kettle for its own sake and not for its utility. The simile will well apply to the exclusive admirers of the Linnean system. Dr. Lindley has within the last few years energetically endeavoured both as a writer and a lecturer to dispense with an artificial arrangement of plants altogether, and to substitute the so-called natural one; for he had himself felt the unsatisfactory nature of his acquirements even when he was imagined to be an excellent Linnean botanist. Perhaps he has carried his antipathy to his first master too far to be just, for it is very questionable whether any artificial adaptation of the natural system will be equal as an index to that of Linneus; for it must be recollected that however natural the Natural system may be, yet that an artificial division must be appended in order to save the time of the learner in ascertaining the names of those families with which he is unacquainted. But although it might be inconvenient to do away with

the Linnean arrangement as an Index, it is not to be regretted, that Mr. Lindley, in his ardour for the promulgation of a more scientific one, has gone to extreme lengths, for he is more likely by such means to excite attention to the true object of artificial classification, and thus to induce more extensive investigations. One of the great benefits of the Natural system is, that its primary divisions are founded on internal structure, and therefore there is a greater probability of its leading the student to inquire into the anatomy and physiology of plants, so as to give a somewhat philosophical character to his investigations, and thus to raise botany in the general opinion to that high rank in the sciences which it undoubtedly should hold. The excellent introduction to Botany of Dr. Lindley, and the translations of Richard's Elémens de Botanique, will do much to accomplish the same purpose, and those who are disposed to enter more deeply into the study of the structure and functions of plants will find in these volumes of M. De Caudolle, and in those which have preceded them, a fund of matter as valuable and as well arranged as was ever brought together to elucidate any similar subject.

An Inquiry into the Nature of Sleep and Death, with a view to ascertain the more immediate Causes of Death, and the better Regulation of the Means of obviating them; being the concluding part of the Author's Experimental Inquiry into the Laws of the Vital Functions. (Republished from the Philosophical Transactions.) By *A. P. W. Philip*, M.D. &c. &c. 8vo. pp. 254.

Our first glance over the title-page of this volume engendered a hope that Dr. Philip had discovered some means of baffling the grim tyrant Death, by depriving him of the weapons by which he cuts down man at all periods of existence. A more close examination, both of the title and the body of the work, has lessened our hopes, and left us in possession of the facts, that diseases and even disorders of the vital organs and functions, carry us off *before* the age of three score years and ten—and that, even if we are fortunate enough to escape sickness, time itself will moulder us into dust *after* that epoch! If ever man deserved immortality, Dr. Philip is that man; for he has studied the "laws of the vital functions," till, we should imagine, he has them all by heart. But if our worthy and indefatigable author has not been able by any experiments on animals, to secure himself from the grave, he has done enough to transmit his name and his fame to posterity—(which is all that the most talented can do, or the most ambitious expect)—and that too notwithstanding the Ulyssean stratagems of Prout, or the Ajax-like lounges of Earle against the "laws" laid down by Dr. Philip.

As most of the papers in this volume have been long before the public, it is not our intention to notice more than the last two chapters, on sleep and death. Nor shall we go very minutely into these. The former subject is a drowsy, and the latter is a melancholy one. Most people indeed, would

rather enjoy the refreshment of a sound sleep, than listen to the most philosophical discussion on its nature and causes. However, as physicians and philosophers must have many sleepless hours, they may as well amuse themselves with a discussion on this, as on any other subject. Dr. Philip's long dissertation on sleep may be brought into a very narrow compass. There is no organ or structure in the body, neither heart, arteries, muscles, or glands, that can carry on uninterrupted action—Dr. Philip to the contrary notwithstanding—and, therefore, the sensorial functions require their period of rest, as well as those of the stomach or any other part. The brain is tired during the day, by the reception of sensations and the exertion of reflections, volitions, &c. and at night we sleep. Dr. Philip maintains that the arteries are in *perpetual* action. We deny it, nor would a thousand experiments on frogs or rabbits convince us of this perpetuity. Dr. Philip admits that the heart appears to have a periodical relaxation, and cessation of its proper stimulus, the blood. Now the heart is never free from the presence of blood, as Dr. Philip must know. The ventricle never empties itself entirely. But as the systole occupies only about a third part of the time occupied by the diastole, it follows that the muscular fibres of the heart are sixteen out of the twenty-four hours in a state of inaction. This is about the period of rest which is enjoyed by the voluntary muscles. The same argument applies to the arteries. If we recollect right, Dr. Philip maintained, in opposition to Dr. Parry, that the arteries contracted and dilated like the heart, though in different rhythms. If this be the case, they have their alternations of labour and repose, like other muscular structures. The muscles of respiration, we need not say, have the same proportions of rest. Even the secreting organs, as the liver and kidneys, which appear to be more perpetually in action than almost any other parts of the human frame have, in reality, alternate labour and repose. Secretion may never, perhaps, entirely cease; but it is periodically in activity and inactivity, comparatively, which answers the same purpose. As to the veins, it will not be said that they are in perpetual action. During the greater part of their time, they are merely passive hydraulic machines, or tubes to convey the blood from one part to another.

Dr. Philip maintains that that part of the brain which supplies nervous energy to the vital organs, as the heart, arteries, &c. is in a state of perpetual or uniform excitement. This may be so; but, if we are correct in shewing that the functions of these organs are in alternate action and repose, we do not see why the brain itself should not be similarly situated? We shall give Dr. Philip's conclusions, however, in his own words, as containing the pith of the paper.

"From a review of the whole of the facts which have been laid before the Society, it appears,—

1. That in the brain and spinal marrow alone reside the active parts of the nervous system.

2. That the law of excitement in the parts of these organs, which are associated with the nerves of sensation and voluntary motion, is uniform excitement followed by proportional exhaustion, which, when it takes place to such a degree as to suspend their usual functions, constitutes sleep; all degrees of exhaustion which do not extend beyond them and the parts associated with them, being consistent with health.

3. That the law of excitement in those parts of the brain and spinal marrow

which are associated with the vital nerves is also uniform excitement, but which is only, when excessive, followed by any degree of exhaustion, no degree of which is consistent with health.

4. That the vital, in no degree partaking of the exhaustion of the sensitive system in sleep, only appears to do so from the influence of the latter on the function of respiration, the only vital function in which these systems co-operate, in consequence of which its organs, without being in any degree debilitated, are less readily excited.

5. That the law of excitement of the muscular fibre, with which both the vital and sensitive parts of the brain and spinal marrow are associated, is interrupted excitement, which, like the excitement of the vital parts of these organs, is only, when excessive, followed by any degree of exhaustion. And

6. That the nature of the muscular fibre is every where the same, the apparent differences in the nature of the muscles of voluntary and involuntary motion depending on the differences of their functions, of their relation to the brain and spinal marrow, and of the circumstances in which they are placed." 150.

Dr. Philip has appended some observations on dreaming, which have nothing particularly novel in them. Although the sensorial powers of the brain become so exhausted that sleep ensues, it does not follow that they are so completely exhausted as not to receive impressions, though indistinctly. It is these faint impressions, from within or without, that cause dreaming. These causes are chiefly from irritation in the digestive organs, as every one who has eaten a heavy supper—or who has weak powers of digestion, must well know. The silence and quietude that generally prevail during sleep tends, also, to promote the perception of sensations then, which otherwise would pass unheeded even when we are wide awake, and when the mind is employed in the avocations of the day. The rapidity of the operations of the memory and imagination, during sleep and in the act of dreaming, is most curious and unaccountable, and so are the incongruities which then occur, and which appear perfectly natural and correct to the dreamer. Dr. Philip endeavours to explain these phenomena in the following manner, but with what success we shall not decide.

"It seems greatly to influence the phenomena of dreaming, that in order to favour the occurrence of sleep, and thus as far as we can prevent unnecessary exhaustion, means are always employed at its accustomed times, to prevent, as much as possible, the excitement of the external organs of senses, and consequently those parts of the brain associated with them. This renders us the more sensible to causes of excitement existing within our own bodies, while, by the inactivity of the parts of the brain which are associated with those organs, we are deprived of the usual control over such parts of the mental functions as are thus excited; the effect of which is greatly increased by the rapidity of the operations of the memory and imagination, when not restrained by some of the various means employed for that purpose in our waking hours. These are often objects of the senses, as written language, diagrams, sounds, and sometimes even objects of touch; but the most common is the mere use of words, independently of any object presented to our senses.

Any one may easily perceive how difficult it is to pursue a train of reasoning without this means of detaining his ideas for the purpose of steadily considering them and comparing them together. Now, in sleep, in consequence of the excitement of the brain being so partial, we are deprived of all these means; and our ideas pass with such rapidity as precludes all consideration and comparison Our conceptions, therefore, are uncorrected by experience, and we are not at all

surprised at the greatest incongruities. Why should we be surprised at our moving through the air when we are not aware that we have not always done so? The mind of the dreamer differs from that of the infant in having been variously impressed, and therefore in the capability of having its impressions recalled. But it is only as far as it is excited, that any impression can be recalled. With this exception it is as void of the results of experience as the mind of the infant; and therefore, in its partial excitement, of the means of correcting any particular train of ideas suggested. In general, there is neither time nor means for reflection, and, consequently, there can neither be doubt nor hesitation.

Such is the rapidity of our thoughts in dreaming, that it is not uncommon for a dream, excited by the noise that awakes us, and which, therefore, must take place in the act of awaking, to occupy, when put into words, more than fifty times the space in the relation. It is a good illustration of what is here said, that when we dream that we are conversing, and thus obliged to employ words, the usual incongruities of dreaming do not occur. The ideas are sufficiently detained to enable us to correct the suggestions of the imagination. No man ever dreamt that he was telling another that he had been flying through the air.

Thus the peculiarities of dreaming arise from the partial operation of the causes of disturbance, and some of the sensitive parts of the brain being capable of excitement without disturbing the others; and thus it is that the more near we are to awaking, the more rational our dreams become, all parts of the brain beginning to partake of the excitement; which has given rise to the adage, that morning dreams are true." 153.

NATURE OF DEATH.

Dr. Philip does not pretend to rend the veil that covers the nature of death in a metaphysical sense of the word. There are some expressions in the opening of this paper which we can hardly agree in. Dr. Philip says that all our knowledge is not acquired, through the medium of our senses, after we are born. "We come into the world with *knowledge* essential to our existence." How does our author support this position? Because, says he, "the infant *knows* as well how to *breathe* and suck as the adult, and these acts depend as much on *mental* operations as those which are the result of experience." Indeed! the act of breathing depends on *mental* operations, when that same act goes on in the profoundest sleep, or in deadly apoplexy, when no mental operation goes on at all! Really, we are astonished that the author of a treatise on the vital functions should assert that the breathing of an infant, when first launched into this world, depends on mental operations. If he had said on *cerebral* operations, there might have been some truth in the assertion; but we maintain that breathing has nothing to do with mental operations—excepting when we are blowing a fire or a flute, which will hardly be called ordinary respiration. We do not deny that the child is born with a few *instincts*, chiefly the art of *sucking*, and that is almost the only one. This instinct or impulse has no analogy to acquired knowledge at all. The instinct cannot be resisted either by infant or animal. It is as much an *involuntary* action as breathing itself. The child will suck when asleep. We believe with Locke, and many others, who have not been deficient in human understanding, that the mind, or rather its organ, is a complete blank when we are born, and that all knowledge is written there afterwards by sensation and reflection. This last may combine and multiply knowledge, but all the raw materials must come through the senses. We do not consider the instinctive impulse to sucking as any species of know-

ledge. The smell of the mother's milk excites the olfactory and gustatory nerves of the infant, in the same way that dust would excite coughing, or snuff sneezing. There would be no great pretence to knowledge in either of these processes, we calculate. Dr. Philip, gives us another piece of information which we confess we were quite ignorant of before. Speaking of this same new-born infant, he says—"he perceives his wants, and he knows how to relieve them." To this we demur. We believe that the infant feels some few of his wants, as the want of food; but we also believe, and indeed we are certain, that he does *not* know how to relieve himself, and, therefore, he squalls out most lustily, till his mother or nurse supplies him. When an infant feels cold, does he know how to relieve himself by additional clothing? Really we never heard such loose, not to say erroneous, reasoning, from any one professing to be an experimental philosopher, as we find in this book.

We find it utterly impossible to give any thing like a connected view of the paper under consideration, since it refers at every page, and almost in every paragraph, to "my inquiry into the Laws of the Vital Functions"—or "the Papers which I had the honour of publishing in the Philosophical Transactions"—all or any of which we have neither time nor inclination to peruse or re-peruse. We are not certain, indeed, that we can always comprehend our author; and in such cases we must adopt the language and conduct of Parliamentary reporters, who, when they cannot hear a word of the orator, inform their readers that "they understood him to say," &c. &c. We understand Dr. Philip, then, to hold that, in the more perfect animals, there are three distinct classes of functions—the sensorial, the nervous, and the muscular, not directly dependent on each other, but only through the influence of their respective organs, the destruction of any one class soon leading to the destruction of the others. The sensorial functions, constituting the sensitive system, and connecting man with the external world, first fails, in natural death, the nervous and muscular systems continuing for a time, but ultimately failing, "in consequence of the failure of respiration, the only vital function to which the co-operation of the sensorial power is necessary." Thus, after all our learning and science, we come to the old conclusion, that "man dies for want of breath." Another conclusion to which the light of science has led us, has long been come to without science at all—namely, that death is only an everlasting sleep.

> "The state which immediately precedes the last act of dying then, according to the common acceptation of the term, and sleep, depend on a failure of function in the same organs. In what, then, consists the difference of these states? The most evident is, that the one is a temporary, the other a final failure; and it will appear, that in the only death which can strictly be called natural, the state of the sensitive system which immediately precedes death differs from its state in sleep in no respect but in degree." 163.

Our author asserts, and the assertion is highly consolatory, that "we are not necessarily born to suffering." Is this quite consistent with Scripture? "All natural states (says Dr. Philip) with the exception of child-bearing (and, in its most natural state, even this is hardly an exception), are more or less pleasurable." Does the infant cut its teeth, even in the most natural state, without some suffering? We apprehend that it does not. Those

who dread death on account of the *agonies* which are usually considered as its attendant, may derive consolation from the following passage.

"The death of old age, therefore, is literally the last sleep, uncharacterized by any peculiarity. The general languor of the functions in the last waking interval is attended with no peculiar suffering, and the last sleep commences with the usual grateful feelings of repose, the last feelings experienced; for with what takes place after them, the feelings, being suspended, have no concern." 166.

This pleasing picture (and we believe it to be a correct one) of the last scene in man's "strange eventful history," is darkened by the reflection that, in civilized life, we rarely see an instance of natural death, as above-described—at least at the natural period of human existence. Dr. Philip inform us that, "of the various instances of death which he has witnessed, there was not one that could be regarded as wholly the effect of age." We have seen more than one instance, where death appeared to be the effect of very advanced age, and where there was no cognizable or tangible disease. We think that when a man dies, worn out by 80 or 90 years, he may fairly be said to die the death of nature. The late Sir Gilbert Blane died in his 85th year, and we are not aware that he laboured under any disease. It is, however, very rare to find all the organs so balanced in strength, that no one gives way under the numerous morbific causes to which we are exposed before the threescore years and ten. Still, even when we are brought to the grave by premature disease, the last scene is the death of nature after all. Look at the individual dying of fever, consumption, apoplexy, &c; we see him lie for hours in a state of stupor, the sleep of death, unconscious of surrounding friends, and insensible to sufferings if they actually exist. It is long before the act of dying, that the individual suffers from the effects of disease. When the malady has brought him to the last act of the drama, the sufferings are over, and he sleeps, or perchance dreams, away the last hours of his existence. But we must draw our notice of Dr. Philip's work to a conclusion with the following extract, the observations in which are very rational and correct.

"The approach of death, if we are aware of it, must always be more or less impressive, not only because we are about to undergo an unknown change, but are leaving all that has hitherto interested and been grateful to us. Even here, however, for the most part, the laws of our nature are merciful. Most diseases of continuance (for we shall find there are some exceptions) not only gradually impair our sensibility, but alter our tastes. They not only render us less sensible to all impressions, but less capable of enjoying as far as we are still sensible to them. The sight of a feast to a man who has lost his appetite is disgustful, and a similar change takes place in a greater or less degree with respect to all other means of enjoyment.

These circumstances constitute a great part of the difference of our feelings with respect to what, in common language, is called a violent and a natural death. In the latter, as far as the sensibility is impaired, we are more or less in the state of old age, and, in addition to this change, our tastes are perverted. By these means, the relish for life is in a great degree destroyed before we lose it. Thus in disease, the most timid often meet death with composure, and sometimes, as I have repeatedly witnessed, with pleasure. I have even known the information that the danger was passed, received only with expressions of regret." 187.

We heartily wish that Dr. Philip would treat us to a good sound dish of

original information, instead of hashing up, in so many new shapes, the fragments of former meals, some of which have got stale, and others not over-wholesome. Let Dr. Philip ponder on what the reviewer of his works, in the last Number of the Edinburgh Medical and Surgical Journal, says on this subject:—

"In almost every page, the author's *peculiar* opinions, physiological and pathological, are *inextricably* mixed with the more immediate object of the treatise, so that, to enter into any discussion on the subject would be, in fact, to review the author's former works."*

We are not, therefore, singular in our strictures on this hashing system of bibliography. If Dr. P. was an ordinary writer, and incapable of producing original works, there might be some excuse for compilation; but he has not this excuse to make, and would not, we apprehend, be very fond of making it, if true.

A NEW SYSTEM OF ORGANIC CHEMISTRY. By *F. V. Raspail.* Translated by *W. Henderson,* M.D. Octavo, pp. 602. London, 1834.

THIS is one of the most ingenious and original works which we have perused for a long time. M. Raspail is evidently a man of superior talent, and this talent is happily associated with the most unwearied zeal and assiduity: his imagination, indeed, like that of most of his countrymen, is apt to be too vivacious, and the celerity of many of his conclusions may somewhat exceed the credulity of a reader on this side of the Channel: but, barring this, every one who peruses the present work must feel pleasure in awarding to M. Raspail the praise of being a most clever chemist, and a subtle and original thinker. From his own account, we are led to suppose that he has been ill used, and that his countrymen, and more especially the members of the French Institute, have been for many years his sworn enemies, and tried in every way to rob him of his fair deserts. We have seen it stated somewhere, that all his devotedness to chemical pursuits had not been able to keep him out of the broil of political agitation, and that, whether justly or unjustly we cannot tell, his one-sided sins had been visited by the public authorities with "durance vile." He confesses, indeed, the want of patronage and the want of funds in the prosecution of his labours; but these seem only to have redoubled his enthusiasm, and many a humble student of our classes and colleges may be inspirited by our author's appeal, when he tells him "not to be discouraged, when his fortune does not permit him to realize the plan which has at first presented itself to his mind. How often, after having cursed my poverty, and despaired of the success of my trials for want of money, has it happened to me that I have, by a sudden thought, conceived the

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* Ed. Journal, July, 1834, p. 178.

idea of an article not worth a penny, which served every purpose that could have been answered by a more expensive apparatus."

This work is entitled a "New System of Organic Chemistry;" *new*, not because it is the most recent, but because it is constructed on different principles, and is developed in a different manner, from what has been attempted by preceding authors. M. Raspail very justly remarks, that chemists have hitherto taken but a very limited, and, therefore, an unscientific view of the composition of organic substances, and he traces most of their errors to their attention having been confined to the mere results of analysis in the laboratory, without appealing to other sources of information. The crucible, the test-tube, the blow-pipe, &c. may be all quite necessary to such an enquiry, but they ought not to be the only tools we work with; and before, indeed, we have recourse to so rude and destructive weapons, our author very aptly exhorts the use of others, which are alike more easy of employ, and often as potently useful. By far the most important of these is the microscope, and, with its wonderful aid, we shall find that our researches are at once made both more amusing and instructive. Had M. Raspail no other claim to our approbation, save that of having introduced this instrument as an essential constituent of the chemist's apparatus, he would have deserved well of science; for although others, among whom we record with especial praise our eminent countrymen, Wollaston, Young, and Brewster, had previously employed it in their enquiries, yet Dr. Henderson is quite justified in asserting that M. R. has "made a more universal application of it to organic chemistry than had before been done, by any one who was able to avail himself of the more accurate principles of chemical science that have been established by the enquiries and discoveries of late years."

There is so much truth, so well expressed, in the following observations, that we cannot deny ourselves the pleasure of extracting them; and their value is enhanced by the consideration, that the spirit which they breathe ought to animate, not only the philosophic chemist, but also the physiologist, the botanist, and natural historian.

"Now Nature is not to be considered as either a Chemist, or a Botanist, or a Zoologist, or a Mineralogist, or a Physiologist. It is not divided into scientific compartments. It does not proceed according to classifications and artificial systems. It is a single cause producing varied combinations.

It is, therefore, absurd to study these combinations only in one view; and yet this is almost precisely what the different sciences have done to this day; and this is the cause of a multitude of errors and misconceptions, and of the dispiriting slowness of the progress of scientific research.

We must, therefore, have recourse to a more rational method—to a more philosophical way of proceeding, if we would arrive at more positive results.

Now this new method may be summed up in these terms.—To borrow from each science all that may be useful for ascertaining a fact, or establishing a law; for, although a book may very properly be special, being a collection of a certain order of facts, an Observer, who confines himself within the circle of a speciality is either incapable or inconsequent.

Certain substances being by natural processes deposited within certain organs, I shall appeal to Anatomy for the means of recognising these organs; and, when once I have learned to distinguish them, I shall apply to Chemistry for the information which its reactions and its processes can furnish. If these organs are too small to be seen by the eye simply, I shall employ the assistance of the magnifying-glasses of the microscope. Physical science will teach me to follow the

course of the luminous rays, and will give me a knowledge of the effects of refracted and reflected light; and I shall establish a chemical laboratory on the object-holder of the microscope." xv.

It would be quite inconsistent with the general scope of this review, devoted as it is to the more immediately practical departments of professional inquiries, to enter upon an examination of this work in detail; but in our capacity as supervisors of medical literature, we feel it a duty to draw the attention of all who are interested in the delightful pursuits of chemical science to the "new system" of M. Raspail, as a work admirable alike for the ingenuity of its speculations, and for the mass of instructive material contained in its pages. A chemist would do well to con over, and try by the test of direct experiment almost every proposition as he goes along. We should be prepared indeed to hear that he dissented from many of their data and inferences, but we shrewdly suspect, that the very refutation of these would lead him to some very important and unexpected results; for there is the germ of genius pervading almost every portion of the work.

We shall content ourselves with selecting certain passages which either apply more immediately to medicine, or are calculated to enlighten the general reader.

At page 176 our author states—

"It has been observed that cotton cloth, however fine, cannot, without injury, be substituted for linen in the preparation of surgeon's lint; and some authors have imagined that they had found the reason of this, in the shape of the fibres of cotton, which, according to them, are triangular, and with sharp angles capable of cutting and irritating the flesh. This explanation, which at best is ridiculous, has been admitted by authors of note in chemistry, who are in general sufficiently difficult on the explanation of facts. Yet it was very easy to see that so minute organs, even if they were as sharp as was supposed, could do little harm, when separated from the living flesh by an inert coagulum. Besides, the microscope assures us that this shape of the fibres of cotton exists only in the imagination of those who have not observed them. The fibres of cotton are tubes analogous to the small hairs of the *Gramina* of which I have spoken, although much larger; they become flat by drying, after which they present the appearance of a band with fringed edges and a raised border. An enlarged figure of them was given in a small essay which I published in 1827 in the *Bibliotheque Physico-Economique*. Finally, it is certain also, that these bands or fibres of cotton are much more flexible than the tubes of hemp or of flax. If, then, the lint acted mechanically, that which is made of hemp or flax ought to be more hurtful than that which consists of cotton; and yet experience shows the contrary. We must then seek the explanation elsewhere, and a very natural one is to be found in the phenomena of capillary attraction. The fibres of hemp and flax are tubes open at both ends, and the watering to which they had been subjected has emptied them of all the juices which they contained. Those of cotton, on the other hand, are hairs shut at both ends, and filled with a *substance tending to organize*, which no watering or washing can remove from them. It is, then, evident that the tubes of linen will be more proper than the hairs of cotton for imbibing blood or pus; for lint made of the latter will not imbibe any thing, but will only allow a free passage among its fibres to any liquid which would have run off just in the same manner without it." 177.

On the curious subject of "muscular contraction," M. Raspail adverts to the doctrine of those who maintain that the fibres of a muscle, when it contracts, assume a zig-zag direction. Prevost and Dumas have lately adopted

this opinion, and endeavoured to demonstrate its truth, by an appeal to certain electro-microscopic observations. Having placed a lamina of muscular tissue in the focus of the microscope, and exposed it to galvanic action, they perceived, we are told, each fibre bend into a zig-zag, forming angles whose apices coincided with the terminations of the nervous filaments. The objections which our author urges against these statements are forcibly conveyed in the following passage:—

"1st, It is difficult to conceive how elastic filaments could form themselves into lines so sharply angled as those figured by the authors of this essay. 2d, They ought to have taught us how to distinguish the muscular fibres from the ultimate filaments of the nervous system. When once the nerves have diminished to the size of the elementary cylinders of muscular fibre, I declare for my part, that it would be impossible for me to distinguish by the microscope what belongs to the nerve and what to the muscle. Anatomists know well that, in following by the lens the nerves to their ultimate ramifications, it becomes very difficult for them to decide on the nature of the texture which they observe; how difficult, then, must it be with the microscope, where very often the eye alone is appealed to, and where the scalpel cannot be employed to trace and unravel the fibres? 3d, Even if these authors did see something analogous to the figures which accompany their descriptions, this experiment would in no way prove what they advance. The muscular lamina is, in fact, necessarily in contact with the object-holder in several points; and, hence, if any tremor be excited in it, either mechanically or by applying the galvanic power to the nervous fibre, this tremor will of itself be sufficient (from the resistance given by the points adhering to the object-holder) to cause sinuous movements, which afterwards in designing the figures have been rendered more or less regular and more or less angular. The result of the observation is then altogether artificial, and cannot in any way be considered as representing what takes place in nature." 261.

M. R. very properly prefers making the experiment, when a muscle contracts under the influence of the vital force, or of its ordinary stimulus, and assures us that he has repeatedly examined the moving organs of many of the lower animals, such as the foot in the anodontes, gasteropodes, &c. and that he has invariably found that the "contractions took place only by means of a shortening of the muscular fibres, and that this shortening was accompanied by an increase in their diameters, which caused small swellings throughout their whole extent."

The next subject which we shall select for notice is one which cannot fail to interest the physiological reader, and as the phenomena which we propose describing briefly, have not been alluded to in any of our medical journals, the account of them will possess all the freshness of novelty to our readers. It is now some years ago since Corti in Italy announced that if a portion of the "chara hispida" (a cryptogamic plant abounding in our marshes and ponds) be examined under the microscope, a most beautifully distinct circulation of globules may be perceived in each internodium or interval, between the transverse septa, which are seen to divide it into numerous segments or compartments.

The truth of this discovery may be most easily verified by any one, as the plant is most common, and we do not require a powerful microscope for the purpose.

M. Raspail has for the last two years performed a multitude of experiments, and the details of some of those we now propose to communicate.

"Let an internodium of the *Chara Hispida* be detached from the stem by cutting it off beyond the articulations that terminate it at each end, taking care to remove all the verticillated branches. The bark which covers it is to be taken off in the following manner:—The internodium is stretched on a glass plate, whose length is less than the distance between the two articulations, and which is placed in a shallow capsule full of water. Each of the small cylinders of the bark is to be raised with the point of a scalpel, and (taking care not to go too deep) the scalpel is to be carried from one end of the internodium to the other, so as to detach them entirely from the trunk. When all the cylindrical thongs of bark are removed, there is brought into view a thick cylinder incrusted with a white substance which adheres strongly to it and is hard and brittle resisting the edge of the scalpel and assuming a farinaceous appearance on drying. This substance is carbonate of lime, which must be removed with a blunt knife by scraping the tube lengthways, holding the blade perpendicularly. The tube being thus prepared, it is immersed in water and placed in the focus of the microscope. The following phenomena may then be observed:—

Through the transparent sides of the tube two opposite longitudinal currents may be seen. They appear to be separated by a longitudinal line, which may be seen on the opposite sides of the tube, and which is distinguished by its whiteness and transparence from the green and granulated layer that lines the inside of the tube. Each of these currents carries with it globules or clots of different sizes, which show its course, but which never mix with those of the opposite current. Sometimes, however, there are seen, on the line of separation, large globules of a more or less cellular structure, which, being kept at the bottom of the liquid by their specific gravity, are there subjected to the resultant of the two simultaneous and opposite forces of the two opposite currents, and consequently turn round on their axis." 357.

A curious phenomenon connected with this vegetable circulation was discovered by Gozzi, and has been repeatedly verified and illustrated by M. Raspail. If ligatures be put round a portion of the tube, at a short distance from each other, and between any two articulations, and the tube be then cut across, between these and the ligatures (so that we have a tube with factitious articulations) not only will the circulation be found to continue, but after a few days the ligatures fall off, and the ends of the tube remain completely closed by the spontaneous adherence of their sides.

"An artificial tube thus prepared is well adapted for the purpose of observing all the phenomena of the circulation. We see, in fact, that the current when it reaches one of the extremities of the tube, makes the circuit of the round end produced by the adherence of the sides, and immediately assumes the opposite direction." 357.

We are told by our author that there is no partition between the two currents, and he has given directions how to ascertain this point. The smallest interruption of the continuity of the green membrane which lines the tube is sufficient to stop the circulation; or if it still continue for a few moments, it will be seen that the circulating fluid avoids the spot from which the green matter has been removed, and that generally nothing passes across this white spot. The integrity of the green membrane seems therefore indispensable to the existence of the circulation. Accordingly, if we bend the tube in the smallest degree we shall certainly arrest the circulation in its interior. Another condition essential to the continuance of the circulation is the moisture of the plant, and hence—

"If we place a tube peeled and deprived of its incrustation in the focus of

the microscope, moistening it with a small drop of water, we shall see that as the water evaporates the internal motion becomes slower; but, if, when it is just about to stop entirely, we apply a drop of water to any point of the tube, we shall immediately see the portion of the internal liquid adjacent to this moistened part of the tube start as it were and begin to move; and, if we then spread the drop of water with a straw over the rest of the tube, the circulation will be re-established in all its former regularity." 360.

The circulation is immediately arrested when a drop of alcohol, liquid ammonia, of pure fixed alkali, or of acid, either vegetable or animal, is placed on the surface of a peeled tube. (There are several engravings at the end of the volume which very beautifully illustrate many of the preceding statements respecting the circulation in the chara.) To attempt to explain the cause of the circulation, which we have now described, on mere hydraulic principles, as M. Raspail has done, appears to us most unsatisfactory and irrational. The French school of physiologists is, as we have frequently of late taken occasion to notice, fast verging to all the presumptuous decisiveness of cold Materialism, such as characterized their countrymen half a century ago. The last editions of Richerand's and of Majendie's systems of Physiology are every where pervaded with this most unphilosophic spirit; but we are rejoiced to think that it has not yet diffused itself beyond the boundaries of "la belle France," and sincerely happy are we, that by far the boldest as well as the most talented disciple of the Materialist school, on this side of the Channel, has within this very present year, and in this very metropolis, publicly yet spontaneously recanted the errors he had too rashly advocated, and has brought himself to acknowledge, that the operations of living bodies are not to be explained on the principles of mere physical influences, and that it is wiser to confess our ignorance than daringly to challenge the wisdom and goodness of an Almighty power.

The comprehensive scope of M. Raspail's work leads him in different parts of it to allude to some of the highly important subjects which may become the themes of examination and disputes in Courts of Law, and the right decision of which may reflect so much credit and honor on the testimony of the medical witnesses. Well indeed does our author say that—

"A mistake may be corrected in chemistry, but in legal medicine it is irreparable. The sword of the law does not retrace its steps as the opinion of a medical man may; and, for this reason, I have never since 1828 allowed any opportunity to escape of rebuking the temerity with which medico-legal opinions are generally given before the judge." 416.

These few lines are introductory to some valuable remarks which M. R. makes on the question "whether it might be ascertained, to what class of animals blood which had become dry, and had produced a given spot, belonged, by simple inspection of its globules, or even by a chemical examination of them." The affirmative was maintained by a chemist of celebrity in Paris some years ago, but he was soon compelled to renounce this opinion, in consequence of the cogent objections which our author adduced soon after.

"About the same time," we are told, "Orfila, relying on experiments on the large scale, announced, in an essay of considerable length, that a spot of blood may be distinguished from a red spot produced by any other substance. I combated this opinion; and, to prove its incorrectness by experiment, I brought for-

ward spots made with the albumen of a pullet's egg in which I had steeped a small bag filled with *madder* slightly moistened. The effect of the reagents mentioned by Orfila was precisely the same on these spots as on real spots of blood. In a succeeding essay Orfila pointed out a difference between the spots of blood and these artificial spots, viz.—that after being boiled the spot of blood appeared greenish by reflection, while the colour of the artificial spot remained unchanged. I replied, that he had gained nothing by this, inasmuch as the object was not to ascertain whether the artificial spots were identical with the real ones or not—but only to prove how deceptious the reagents mentioned in his essay were, as applied to a substance of so complicated a nature as blood, since he had found it necessary to renew his inquiry and have recourse to new criteria to distinguish a real spot of blood from another part of a kind not previously compared with it; and that it was possible to make a new mixture which this new test would not be able to detect, by adding to the spot of albumen and madder a portion of tannin and of a salt of iron, in such a manner that they should not act on each other till they were boiled together. I added, that nature abounds in mixtures whose study the chemist has not yet entered on, and which might be capable of presenting, on a small scale, the appearance of blood, since this liquid is nothing but a mixture of albumen, dissolved and undissolved, with various salts, a ferruginous colouring matter, and water—substances which might be brought together naturally or accidentally in twenty different ways.

The dispute was keen, as is always the case on medical subjects; but the alarm was given, doubts began to be entertained, and, finally the opinion was abandoned." 417.

From the preceding extracts our readers may judge of the valuable contents of the work now under review.

A Treatise on the Diseases and Injuries of the Spinal Nerves. By *Joseph Swan*, &c. &c.

[Third and concluding Article.]

The business of the critic can scarcely, perhaps, be dignified with the appellation of an art. His office in the intellectual world is analogous to that of the "maitre de cuisine," in the animal, and probably the hungry author will apply to both the same opprobrious adage, with reference to the origin of the viands and the cook.

The combinations of the latter have exercised the ingenuity and gratified the inclinations of every age, since the æra of Prometheus, the thief of fire. A mighty nation is justly proud of its incontestable pre-eminence in the direction of the kitchen, and the modern descendants of the warlike subjects of Clovis and Charlemagne, are less likely to be excelled in the *science* of gastronomy, than in that of war.

If the gratification of the palate is accounted the peculiar excellence of a great people, and if the professors of the pleasing art are appreciated and rewarded by the noble and the wise,* the occupation of the critic should be

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* Louis Eustace Ude is said to rejoice in his box at the opera.

equally honoured and remunerated. But we fear that since the period when the Roman Knight established the dependence of the members on the belly, the latter has exercised an undisputed sovereignty. If a celebrated culinary physician were asked which he deemed the most glorious—the prescription of physic or preparation of food, we have little doubt that the palm would be awarded to the latter. Were a committee of Crockford's appointed to decide on the respective utility of Ude and of Gifford, the experienced better would probably wager on the triumph of the former.

We will not attempt to balance the merits of cookery and criticism, yet we must contend that as natural genius and assiduous study are universally admitted to be necessary to form the accomplished cook, some portion, at least, of reflection and experience are requisite to constitute the dexterous critic. The world would seem to disregard this reasonable postulate, and even Byron has believed that critics could be ready-made. The conductor of a Journal has frequent opportunities of lamenting the prevalence of this monstrous error. Correspondents amerce him in his pocket for amicable communications and obliging hints on the best way of managing his own affairs. His Majesty's post is the unexpensive medium of advice, which if taken, would have probably the effect intended—the reduction of the advised party to the pleasant situation described in the fable of the Man, his Son, and his Ass.

Did the critic cater for a single taste, a moderate experience might enable him to satisfy it. But when it is his office to replenish mouths of different dimensions, and to tickle palates of different susceptibilities, the man who gives only one dish and one sauce may possibly sometimes find them rejected.

We have offered these remarks in consequence of receiving some friendly communications on the best mode of editing this Journal. One gentleman has suggested a few very long articles, another has counselled a multitude of short ones. If these critical amateurs were confronted with each other, we should probably be amused by an interesting argument on taste. One excellent monitor has hinted that we indulge in scurrility and impiety. He dates his letter from the modern Athens, the native seat of toddy and religion.* Perhaps he was offended at our *blasphemous* denunciation of the midnight processions., and the pulpit alarums, for which Scotland was distinguished in the time of the cholera. To his injurious accusations we disdain reply. Whilst the sober Scotsman has been shocked at our scurrility, and would measure our step by the solemn gait of the tragic muse, a Southron well-wisher has lamented our sedateness, and deplored our want of spirit.

The ingenuous exposition of contradictory complaints, will usually convince the candid judge of their general injustice. The reader will perceive, that the Editor of an extensively circulated Journal is under the necessity of trusting to his own judgment, and of following the course which experience, or tact, induce him to believe most widely useful, and most generally approved. By such a standard he is actually tried, and he cannot be rewarded or amerced at the arbitrary tribunal of individual inclination.

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* "Rum and true religion."—*Byron.*

This, which may be looked on as a species of apology, has appeared to us to be required on offering a *third* notice of the book before us. Nothing can be further from our wish or our intention, than the paltry attempt to spread a continuous article through successive numbers of this Review, for the purpose of provoking or sustaining curiosity. Such devices are too shallow, too contemptible to be entertained by any but the venal conductors of some penny trash. When the subject admits of natural divisions it is frequently convenient to adopt them. In the instance of the present work, the second notice formed a large component part of an article upon the nerves, which occupied 28 of our closely printed pages. Had the notice been completed in that article, it must either have been slurred and in all respects imperfect, or its bulk would have exceeded all reasonable limits.

It may not be thought impertinent if we make a few remarks on the subject of medical reviewing. Three classes of books are presented by the authors with equal confidence to the notice and approbation of the critic. The first is extremely good, the second is extremely bad, and the third is neither. No doubt can exist with respect to the treatment of the first class—the temper and tact of the reviewer will regulate his severity or forbearance towards the second—but the real difficulty is experienced in the management of the third. If too much space is allotted to a work of the latter description, the public is dissatisfied—if too little, the author and the author's friends are discontented.

Were the good works numerous, the reviewer's labour would be light—were the bad ones universal, his difficulties would be inconsiderable—the predominance of productions too good to be neglected, too indifferent to deserve the dedication of much attention, is that which perplexes the experienced critic, and ruins the incautious one.

Being in some degree Utilitarians, and thinking that the true objects of a medical review are the advantage and instruction of that portion of the profession, who are not possessed of the leisure for perusing or the means for purchasing those works which display and which contribute to the advance of science, we have always leaned to the side of analysis rather than of criticism. The former is more mechanical, more laborious, and more adapted to the purpose of diffusing information—the latter is more shewy, and less useful. We conceive that, in general, a lengthened abstract of one valuable work, is preferable to a meagre notice of a dozen. The latter is little superior to a catalogue—it provokes an appetite which it cannot satisfy, and insults the understanding by its impudent imitation of substantial aliment. Yet the paucity of original books of real value must compel the critic to abandon the hope of an exclusive plan; and the nature of the circumstances renders it advisable to combine the method of presenting a full account of good works, with the expedient of offering brief criticisms, or rapid sketches of inferior ones.

The medical public are perhaps not aware of the labour undergone by the conductors of an Analytical Review. A principal part is experienced, where probably it would scarcely be expected to exist, in finding matter adapted for their operations. Many a volume which is brought to their alembic, is composed of materials too coarse and too valueless to be analyzed, or too imponderable to be secured. The fatiguing process of examination is merely productive of disappointment and rejection. The Editors of this Journal

have laboured at least long, if they have not laboured well. They possess experience, and may claim the useful merit of industry. They have had little reason to complain of the public, and they trust that the public will find no just occasion to complain of them.

From this preliminary digression, we are recalled to the subject immediately before us. Five chapters of the work of Mr. Swan, consisting of more than one hundred and thirty pages await examination. The subjects of those chapters are—Diseased Appearances in the Spinal Canal—Injuries of the Spinal Chord—Diseases of the Nerves of the Senses—Diseases of the Sympathetic Nerve—and Tetanus.

DISEASED APPEARANCES IN THE SPINAL CHORD.

This chapter consists of the particulars of four cases. We fear that it can lay no claims to the possession of a complete or scientific arrangement, in fact that is no more than the expression of four insulated facts. The object with which they are brought forward is praiseworthy:—to add to the existing catalogue of authentic morbid appearances discovered in the vertebral canal. We shall briefly report the principal particulars..

CASE 1. *Hydrocephalus—thickening of the Spinal Arachnoid.*

A boy, eight months old, was seized with vomiting and fever, succeeded by opisthotonos, convulsive motions of all the muscles of the body, and insensibility, with dilated pupils. In a fortnight or three weeks after the commencement of the attack, the patient died.

On dissection, Mr. Swan found the fontanelle wider than it should have been, and a great quantity of fluid in the ventricles of the brain. On opening the spinal canal, three patches of a reddish substance, about the surface of a horse-bean, lay on the dura mater, about the beginning of the dorsal vertebræ, but he could not decide whether these were owing to disease. From the level of the first dorsal vertebra, the spinal arachnoid was thickened and opaque, and had coagulable lymph effused on it as far as the beginning of the cauda equina. The pia mater appeared to have been involved in the disease. The morbid appearances were confined to the posterior part of the chord.

We suppose that it is fair to consider the opisthotonos, if not the convulsions, as special symptoms produced by the condition of the spinal arachnoid.

Case 2. In a man, aged 25, who was hanged for murder, the spinal arachnoid had several patches of a cartilaginous substance on it. In each of the choroid plexuses was a yellowish tumour, about the size of a large pea. There was much fluid in the ventricles. The man had been confined in the gaol for many weeks, and during the whole time was in perfect health.

Mr. Swan observes, that similar appearances in cases of tetanus cannot fairly be considered as the causes of it. We imagine that little doubt can be entertained of the frequency of mistakes respecting morbid changes and appearances of the spinal marrow and its membranes.

Case 3.—*Epilepsy—Cartilaginous State of the Spinal Dura Mater and Arachnoid.*

A man, aged 45, was admitted into the Lincoln County Hospital, on account of epileptic fits, under which he had laboured, at intervals, for seven years. He died in the hospital, from an attack of erysipelas.

On dissection, the longitudinal sinus was found to terminate in the left lateral sinus, and there was a communication between the two lateral sinuses very little larger than would admit the blunt end of a probe. The right lateral sinus appeared to be a continuation of the torcular Herophili. This arrangement must, apparently, have tended to retard the return of the blood. There was some fluid between the dura mater and arachnoid membrane of the brain, and the whole arachnoid covering the convolutions was very opaque and much thickened. Some small patches of cartilaginous matter were observed on it.

On the inner surface of the spinal dura mater was one small scale of cartilaginous matter. The arachnoid membrane adhered very much to the dura mater within the cervical vertebræ, and there were many adhesions through its whole extent, especially on the posterior part. There were several scales of cartilaginous matter on it, the same as in the preceding case.

Case 4. *Reddish Substances on the outside of the Dura Mater.*

In the first of these cases, Mr. Swan alluded to some patches of a reddish substance, which lay on the outside of the dura mater. He has frequently observed similar appearances in different parts of the spinal canal, and more especially in the inferior portion. He cannot, therefore, at present, consider them the consequences of disease. In dissecting the body of a man whose lungs were very much diseased, he found such an appearance covering all the posterior part of the dura mater of the spinal canal, to a very unusual extent. There was a fluid very much like pus at several of the inferior spinal holes. On opening the dura mater, many adhesions were found between it and the arachnoid membrane, especially that part contained within the cervical vertebræ, some of these adhesions were long, like threads. Some bloody fluid was found in the inferior part of the sheath.

Such are the contents of the chapter on "diseased appearances of the spinal canal." It is evident that the title is too bold. It should have been worded, with more truth and more hesitation—on *some* of the diseased appearances in the canal.

We think we hinted in a former article that Mr. Swan is not happy in his theoretic ventures. The reader may be rather tempted to smile, than to be convinced, when Mr. Swan informs him, that he has known hiccup very troublesome in affections of the chest, and that he conceives it may depend upon disease communicated to the phrenic nerve.

The thirteenth chapter is devoted to injuries of the spinal chord.

On Injuries of the Spinal Chord.

This consists, like the former chapter, of narratives of cases, with the interposition of a few remarks, chiefly of a speculative character. It is a

subject of regret that Mr. Swan should display two material defects in the construction of this work—want of method in the arrangement, and prolixity in the details. A little reflection might convince him, that the simple transfer of particulars, whether trivial or important, from the private case-book to the published volume, is an easy but an unsatisfactory mode of compilation. It requires little judgment, and still less genius to scrape together the notes of all the cases we have seen of a particular description, and denominate them a chapter, or section, or essay on the malady of which they are promiscuous specimens. We are advocates for the publication of cases, because we conceive that a philosophical work should approach as much as possible to the character of demonstration, and that opinions should be little more than the simple and obvious expression of facts. But a superficial knowledge of the laws of logic and of reasoning is sufficient to inform the medical writer, that irrelevant details and unimportant particulars, obscure what they do not illustrate, and fatigue rather than convince. To employ the language of the logician, the object of the exact and perspicuous writer should be to discover and enunciate the *essential mode* of the subject upon which he treats, and to strip it of those accidental attributes which encumber and conceal its essence. The expansive tendency of the facts of Mr. Swan is great, for one case is diffused through sixteen pages of his work.

We shall select those facts which appear to merit attention. The following appears to be an instance of concussion of the spinal marrow, or, at least, of an injury not amounting to much actual physical lesion.

Case. "A man, about thirty years of age, fell from a waggon on his back: he immediately had violent pain in his back, with convulsions of its muscles, attended with most excruciating pain; for a minute or two he would be comparatively easy, and then the convulsions would return with great violence. He was bled, took a large dose of laudanum, and a mixture with sulphate of magnesia dissolved in peppermint water, to which some ether was added: his back was frequently fomented and rubbed with anodyne liniment. The pain continued in this way violent for about twelve hours, and then gradually abated: at the end of twenty-four hours he had passed no urine, and as the bladder was very much distended, and he had much pain from it, his water was drawn off: he continued after this to expel his urine whenever he pleased: the pain kept gradually diminishing, and in about a week all symptoms of complaint, except general weakness, left him." 225.

In the next case the injury was greater, and probably some alteration was produced in the organization of the medulla.

Case. A man, æt. 33, whilst on the ground, had his head forced violently forward. He immediately became insensible, and as it was supposed that his neck was dislocated, a man immediately held him fast between his knees, and having his hands fixed under the lower jaw, drew up the head forcibly, and the patient became instantly sensible. But all the parts below the neck were now discovered to be paralytic, the right side more completely than the left, sensation and motion being lost on the former, while imperfect sensibility was retained upon the latter. On the next day, he was seen by Mr. Barton, of Market Raisin, who found considerable tumefaction about the lowest cervical vertebra, pain in that situation, a paralytic state of the body, and fever. By venesection, and other antiphlogistic remedies,

he was relieved. Although no distortion of the spine could be detected, pain and increased numbness were occasioned by certain movements of the arms, and by deep lateral pressure on the vertebræ. It appeared to Mr. B. that there was a fracture connected with the right transverse process.

In January, 1820 (the accident had happened in the preceding September,) he was admitted into the County Hospital. He had the perfect feeling in every part of the body, except the extremities of the thumbs and fingers, which felt very numb; the muscles below the injury were as completely paralytic as they ever had been, but he could distinguish whatever touched him: he complained of a pain in his head, which had continued ever since the accident; he complained likewise of a very great pain in the right shoulder: there were some enlargement and tenderness on pressure about the last cervical vertebra: he appeared in good health as far as the functions of the viscera were concerned. Mr. Swan made a seton on each side of the affected vertebra. Soon after they began to discharge, he regained some power over the muscles. At the end of a month, he could just stand by himself, and walk, when steadied and supported by another. He had some use of the left arm, but very little of the right. We need not pursue the details. We need only state that he was discharged from the hospital in June, with such use of his lower extremities, as to be enabled to walk to a considerable distance. The use of his arms was also much improved, and he was entirely free from pain when they were moved. He was in perfect health. All enlargement and tenderness about the vertebra had disappeared.

This case will afford an opportunity for making a remark, with reference to the treatment of injuries of the spine. We think that the general occurrence of inflammatory action of the membranes or the substance of the spinal marrow, as a consequence of injury, has not been sufficiently attended to. The profession are anxiously alive to the supervention of inflammation of the brain, after blows upon the head—they endeavour to prevent it by precautionary depletion—watch every symptom, in order to arrive at a ready recognition of it—and, when it has occurred, they treat it with activity and boldness. Yet when similar injuries have been inflicted on the spine, the patient is frequently allowed to take his chance, with little assistance from the surgeon or physician. He is placed upon his back, his diet is restrained, and his bowels may be regulated, but, so far as our opportunities of observing and of reading have extended, the catalogue of remedies most commonly embraces few further, nor any more potent items.

Yet, if cases of this description are accurately studied, it will be found that the symptoms commonly characteristic of inflammatory action are usually established at an earlier or a later period, subsequent to the infliction of the injury. The pulse increases in frequency and force, the skin grows warm, the secretions are altered, pain may be felt in the seat of the injury, and the parts supplied by the nerves from the medulla opposite and below the affected part, display the conditions which vascular excitement of the medulla, or pressure on it from effusion, might be thought to be respectively likely to produce. It would be foreign to our purpose to pursue this subject at the present moment. We have merely thrown out the hint, which observant surgeons will discover, we believe, to be founded in truth. We have reason to hope that Mr. Brodie will communicate the results of his observation and

his experience on this subject to the public, at no distant period, and we are much mistaken if he does not present a more scientific and exact account of the symptoms, the consequences, and the treatment of injuries of the spinal column, than has yet been offered to the profession.

Mr. Swan's observations on this subject are so judicious, that we willingly extract them.

"There are three occurrences always to be feared after an injury of the spine, any one of which sooner or later is destructive of life, and therefore their prevention ought to occupy seriously the mind of every surgeon. The occurrences I allude to are inflammation spreading to the medulla or its membranes; disease of the bladder; and mortification of the lower part of the back and nates.

When the spine is injured, the same changes take place as in injuries of other parts of the body. Inflammation, in a greater or less degree, is set up, and if the injury is below the part that supplies nerves to organs immediately necessary for the maintenance of life, it is the inflammation, I believe, which causes death, when it happens very soon after the accident. It becomes, therefore, necessary to prevent inflammation of the chord and its membranes, by general and topical bleeding; indeed the same care ought to be taken as in injuries of the head. The diet should be of the mildest kind, and an absolute state of rest in a recumbent position should be enjoined. It is not enough for the symptoms immediately ensuing on the accident to be removed, but attention to diet ought for some time to be adhered to, and every exertion of the body avoided, and especially riding in a carriage over rough roads. Should pain arise in the injured part, blood should be taken from it by leeches or cupping; or should numbness or any other symptom denoting impaired functions of the chord be complained of, blood may be taken away in the same manner; and if the patient is not relieved, setons or issues should be made near the part. In mentioning setons and issues I would by no means recommend their being made immediately over a fractured vertebra, unless some weeks have elapsed since the accident, as issues especially may communicate with the fracture, and make it a compound one, thus causing irreparable injury.

The urine should be drawn off twice or three times in twenty-four hours, and if the bladder be insensible, so much greater ought to be the care taken in using the catheter, for an injury may be easily done; and when ulceration has begun in a part deprived of the influence of the brain, nature seems to have but little power in controlling it.

Mortification of the parts below the injury must be prevented by keeping them very clean and dry, and washing them with a spirituous embrocation, as brandy, &c." 251.

In some cases, small general bleedings are productive of advantage. Of course their employment must be regulated by the general condition of the patient, and the actual character of the symptoms. In a case of severe injury of the dorsal portion of the spine, which was admitted into St. George's Hospital, repeated bleedings, to the amount of four or five ounces at a time, were highly useful. The blood displayed the usual characters of inflammation, as the patient evinced its ordinary symptoms. He had perfect paralysis of all the parts below the seat of injury. He gradually recovered, and we met him about twelve months ago, walking without the aid of a stick in the street.

Mr. Swan appears to deprecate, rather than to approve, the proposal to trephine the spine in cases of fracture with depression. He plausibly, indeed fairly, urges the difficulty of determining the nature and amount of injury, and observes that, were this as easy as it is impracticable, the pro-

priety and safety of the operation would continue doubtful. The first argument is so weighty, that we fancy the operation will continue a subject of speculative reasoning, rather than one of practical application.

There are several omissions in Mr. Swan's notice of the effects of injury upon the spine. He has not alluded to, or has faintly glanced, at the alterations of the temperature of the body—the disturbance of the urinary secretions and organs—the variations in the sensibility and mobility of the parts below the seat of injury—the condition of priapism—and the structural changes which occur in the medulla. These are severally matters of interest and of importance to the scientific and the practical surgeon.

Diseases of the Nerves of the Senses.

These form the contents of the fourteenth chapter. Mr. Swan first considers disease of the olfactory nerves; but we perceive little in his observations to detain us. The only remark to which we think it necessary to allude, is in reference to the perception of unpleasant odours, when no apparent external cause for them exists: and no obvious alterations of the nerves, of the apparatus of smell, or, indeed, of any part of the body whatever, is present to account for them. He compares this unnatural condition of smell, to what is observed when morbid impressions are made on the optic nerve, spots of various colours and shapes being seen, as though they had a real and substantive existence. When this "morbid action" (the term may be exceptionable) of the nerves of smell is set up, the functions of the stomach and viscera connected with them are, as Mr. Swan assures us, frequently deranged, and if these are restored to a healthy state, the disorder will generally cease.

From diseases of the olfactory, Mr. Swan proceeds to those of the optic nerves. He subjoins some description of amaurosis, which we may omit. But he offers some observations, dictated by experience, on the treatment of "dizziness."

"When it comes on frequently, I have found it very difficult to cure by the means usually employed for that purpose. As I have in several obstinate cases removed it, I think it may not be useless to relate what has occurred to me on the subject.

When a person has become subject to dizziness, though he may in the first instance have been relieved by bleeding, yet should the complaint soon return, and especially if the body is much debilitated, a farther loss of blood will not only not relieve it, but will, on the contrary increase it. In many cases the usual remedies may be employed with advantage; but there are others in which the complaint is continued from habit, which must be interrupted by every thing that can improve the general health; and, with this view, I have several times given, with success, from half a drachm to a drachm of powdered bark every four hours; at the same time allowing a generous diet, with the use of wine. I have often thought malt liquor prejudicial.

Instead of dizziness, or accompanied by it, some people will have a very confused sensation in the head, attended with debility of body, restlessness, palpitations of the heart, and mental irritation, almost amounting to insanity; which I have known to be cured by the same means." 260.

Of course, dizziness is a symptom of several conditions of the cerebral or other systems. The inexperienced surgeon or physician must not rashly

follow Mr. Swan's advice. Proper care must be exercised in discriminating cases.

When children, says our author, are affected with a disordered state of the digestive organs, or worms, squinting is frequently produced, in consequence of the impaired action of the abductor muscle, through an affection of its nerve produced by its communication with the sympathetic.

We will not follow Mr. Swan through his devious pursuit of the functions of the lenticular ganglion. His reasoning is ingenious, and his suppositions may be just.

In treating of diseases of the gustatory nerves, Mr. Swan observes, and he quotes a case in point from Sir Everard Home, that these nerves are sometimes violently bruised between the teeth, and that loss of the sense of taste has been the consequence. In a woman who was bitten on the tip of the tongue by a wasp, the part became swollen and very painful, and she lost the gustatory sense for a week. Mr. Swan also alludes to the well-known circumstance, that taste is rendered imperfect, by obstruction to the passage of air through the nostrils. But we cannot admit his explanation to be a happy one. He supposes that the absence of taste is produced by the air, which should pass through the nose, being carried between the tongue and the palate, and keeping those parts too much asunder. A simple experiment may convince any one that this is not a necessary consequence of obstruction of the nasal passage, and a more philosophical rationale of the circumstance may be found, in the consideration of the compound nature of taste. It is proved that this consists of the impression produced by sapid substances on the tongue, and, perhaps, upon the palate; and of the odour of the substance, or some sensible quality, appreciated in the nares. The obstruction of the passage of air through the latter prevents the developement of this species of sense, and impairs, in that ratio, the general function of taste.

Mr. Swan occupies twenty-two pages with diseases of the auditory nerves, or rather with some observations upon deafness. These are not arranged with sufficient precision to enable us to lay their substance before our readers, in the space which the pressure of other articles permits to dedicate to this. Yet we will endeavour to select the most novel or peculiar.

He first relates a case in which, after an injury of the head, and the flow of much blood from the right ear, accompanied with insensibility, permanent deafness of that ear ensued. He supposes that the auditory nerve was greatly injured or destroyed.

The characters of nervous deafness next occupy his attention.

"The functions of the auditory nerves may be impaired so as to produce deafness. When this is the case, the patient finds he cannot hear sounds that he was accustomed to, and is at the same time tormented with various noises, which are compared to the undulations of the sounds of bells, humming of bees, waterfalls, &c, and if the complaint increases, he becomes so deaf as not to hear at all without the greatest difficulty."

"The noises attending nervous deafness, likewise attend diseases of the external auditory meatus, as when it is filled with hardened cerumen, and likewise when there is a diseased state of the membrane lining the meatus. When there are noises with a loss of the sense, and the external auditory meatus and the membrane of the tympanum have every appearance of being in a healthy state, if the patient stops his nose and mouth and blows downwards, and feels that

peculiar sensation which every one does when the Eustachian tubes are perfect, and if a watch cannot be heard except very faintly, when it is in contact with the head, face, neck, or teeth, we may be certain that the disease is in the nerve." 269.

We fear we know too little of the real functions of the different component parts of the auditory apparatus, to enable us to acquiesce, without misgivings, in the foregoing positive annunciation. We conceive that, when the argument is fairly weighed, its value amounts to little more than this, that in the cases described by Mr. Swan, the external meatus and the membrane of the tympanum are probably not concerned in the production of the deafness, and that it is certainly not dependent on obstruction of the Eustachian tube. Beyond this, we see no certainy nor safety.

The treatment recommended by Mr. Swan, in cases of this nature, consists of mercurial purgation, with antiphlogistic regimen, and the application of blisters behind the ears. The patient should be bled, when symptoms of fullness of the cranial circulation are present.

Mr. Swan has some ideas, or rather some suspicions, on the action of the branches of the glosso-pharyngeal nerve, distributed upon the tympanum, which, although more fanciful than likely to produce conviction, may not be unworthy of the notice of the scientific reader.

"In tracing the tympanine branch of the glosso-pharyngeal nerve, which has been so particularly described by Jacobson, much of its distribution may be seen on the transparent membrane lining the tympanum when this part is perfectly sound, but when it is diseased a very considerable difficulty is experienced. In an attempt to trace this nerve in the head of an old woman, the membrane lining the tympanum was not only thickened, but there was at the same time some roughness of the bone. In the head of a man, who had a suppurating node on the forehead, and whose posterior nostrils were stopped up by adhesions of the soft palate, this membrane was also thickened; the spheno-palatine ganglion was very considerably enlarged. In the dissection of the head of a very young woman, the Schneiderian membrane, covering the inferior turbinated bone of the left nostril, adhered very considerably to that of the septum, so that a very little passage was left for the air; there was a perforation in the membrane of the tympanum of the same side, and purulent matter was contained in each tympanum. The membrane lining the tympanum was so much thickened, that the nerves could not be observed.

I believe deafness does not so often depend on a disease of the auditory nerve as has been supposed, but much more frequently on an inflammatory action attacking the membrane lining the tympanum, and involving these small branches of the tympanine nerve. There are very few deaf people who cannot hear music or singing, or who cannot hear conversation, whilst they are in a carriage in motion. But it is not so with those who are nearly blind, for when the optic nerve is paralysed, no light, or any modification of it, can produce perfect sight, and it must be the same with the auditory nerves with respect to sound. I will not deny that a very strong light may enable a person who has a slight degree of vision to see some objects almost in the same manner as a very deaf person hears with a speaking trumpet. I believe, therefore, that deafness depends very frequently on the inflammatory action which has impaired these minute branches of the glosso-pharyngeal nerve, distributed on the tympanum; and although many of the noises may depend on the disordered functions of the auditory nerve, I nevertheless think they may arise, too, from these small branches of the glosso-pharyngeal, and their communication with the sympathetic in the carotic canal." 271.

A less ingenious man than Mr. Swan might regard the chronic inflammatory thickening of the tympanum as sufficient, *per se*, to account for the phenomena, independent of any particular alteration of a branch, so small as to be almost imperceptible, of a nerve whose office continues problematical. The microscopic eye of the physiological anatomist observes, with attention, objects that escape the vague glance of common men.

Mr. Swan alludes to the occurrence of deafness in consequence of exposure to very loud sounds, when the ear is unprepared to receive them. He relates the case of a Captain Norton. We conjecture, from the circumstances, that the Captain had been exposed to the sound of artillery, in some of those actions which seldom redound to aught but the honour of our gallant sailors. We will let our hero tell his own story in his own way.

"In reply to Mr. Swan's questions, Captain Norton begs to state, that blood only came from the left ear, being in a right line towards the percussion; yet the singing or intense buzzing was equal in both ears—sometimes like the chirping of ten thousand sparrows, and at others a monstrous hissing. The first day Captain Norton could not hear any thing, and the second day could only hear a person who placed his mouth close to the ear, and spoke in a modulated tone; could not hear the high notes of a fife; could not distinguish the tune; he could not hear the boatswain's call (whistle).

Some four or five weeks afterwards Captain Norton was again in action, and was close to the muzzle of a gun when fired, and the report most completely restored his hearing for two days, when the singing again commenced. Captain Norton is of opinion that his hearing is as acute as ever, and it is only the singing which confuses sounds; for when one person only is speaking, he can hear him tolerably well; but when three or four are speaking at the same time, he cannot distinguish any one: he can hear a distant gun or bell as well as any one." 274.

Mr. Swan imagines, what, indeed, is more than probable, that in this and similar instances, the membrane of the tympanum is ruptured. He supposes that, where particular sounds can be heard, but words cannot be sufficiently distinguished, in a conversation carried on by several persons, (occurrences sufficiently common in deafness,) the reason may probably be found in the membrane of the tympanum and that of the round fenestra not acting in unison. We leave this supposition for the assent or investigation of our readers. We may state, however, that Mr. Swan is laudably actuated by the desire to encourage the patient and practitioner with the hope, that deafness may depend more frequently on affections of the tympanum, a part within our reach, than on distant and inaccessible conditions of the auditory nerve. He thinks it probable, that many of those affections have their origin in inflammatory affections of the tympanum, and that numerous instances of deafness would be prevented, were the surgeon more judicious and more active in treating the ear-achs and similar complaints of early life.

Mr. Swan brings forward some curious facts, in order to establish a singular hypothesis:—That the portio dura of the seventh pair of nerves contributes to the sense of hearing. Let our readers listen to Mr. Swan's argument.

"When the ears are stopped, and a watch is brought in contact with any part of the head, face, teeth, or neck; or if a stick, water, &c. be interposed between

any of these parts and the watch, the sound will be heard as well as when the ears are open.

It has been supposed that the sound is mechanically conveyed through the flesh and bone in the same way it is through a macerated bone, piece of wood, &c.; but if it were so, it must be heard always when the auditory nerve is perfect, at whatever part of the head, face, &c. the watch is applied, but this is not the case. When the hearing through the external meatus has been perfect, and there has been no apparent alteration in the structure of the head, face, &c., I have seen many who could hear from only one of these parts, and several who could not hear from any of them.

"If I stop my ears and rest my chin on the petrous portion of the temporal bone in a macerated skull, and place my watch in contact with any part of the skull, I can hear the sound perfectly. I saw a boy who was born deaf and dumb, but had been taught to speak, and when a watch touched the left side of his face he could hear it, but when it touched any part of the right side he could not in the least.

A man who was recovering from an illness had become so deaf of the left ear that he could just hear my watch when put very near it; he heard perfectly of the right ear. I desired he would stop his ears until he could not hear my watch when put nearly in contact with them; I then let it touch the left side of the face, &c.; he just heard it, but when I let it touch the right side, he heard it distinctly.

If sound is conveyed mechanically through the flesh and bone, what in these two cases should hinder it from being heard distinctly, when the watch touched either side of the face, any more than in the macerated skull?

If sound is not conveyed mechanically through the head, face, &c., it must be through some other medium, and that I believe to be the facial nerve of the seventh pair and some other nerves connected with it.

On dissecting the seventh pair of nerves in man, I find at the bottom of the internal auditory meatus a communication between the auditory and facial nerves.

In sheep I have observed the same communication.

In fishes several nerves, that have a communication with the auditory nerve, are spread on the skin over the whole head.

If we consider how the facial nerve is connected by nervous substance with the auditory, its extraordinary course, its receiving the branch of the vidian nerve and the chord of the tympanum, and, when it has got out of the stylo-mastoid foramen, its great expansion, I think we may conclude that it was made to serve some greater purpose than has hitherto been ascribed to it." 281.

The idea is ingenious, but we do not completely understand its applicability to the facts. Why should a boy, born deaf and dumb, hear the ticking of a watch placed in contact with the left side of his face, and remain insensible to the same sound, when any part of the right side of the face was touched? Was the portio-dura on the latter side paralyzed? Probably Mr. Swan could dispel the doubts that cling to the sceptical mind of the critic. Our author, indeed, pursues the supposition through several pages, and through a lengthened series of experiments performed on an individual born deaf and dumb. Whilst we beg to refer the inquisitive reader to the work of Mr. Swan, we must take the liberty of hinting our belief that he has not perfectly made out his case. Yet we cannot enter the arena of argument, and perhaps it is not just to assume the rights of victory, when prudence or necessity compel us to decline the fight.

ON DISEASES OF THE SYMPATHETIC NERVE.

The experienced reviewer has witnessed the decline and fall of numerous attempts to determine and distinguish the diseases of the sympathetic nerve. The genius of Bichât almost grasped its physiology, yet the doubt which is gathering, rather than subsiding, on this interesting question, may shew how inadequate are the efforts of even a master's mind, to decide by reasoning, subjects that can be proved only by direct demonstration and induction.

Mr. Swan commences by shewing that Bichât did not hold such exclusive opinions as have been supposed, on the want of sensibility in the sympathetic nerve. It requires, indeed, but a moment's reflection to shew the apparent incompatibility of such a notion, with the various sensations experienced in health and in disease, in the parts to which the sympathetic is distributed. Yet in estimating the functions of this nerve, or rather system, the reasoner and the experimenter are met by an obvious and a startling difficulty. The nerve in question is so connected and involved with the cerebral and spinal nerves, that it seems impossible to decide on the respective parts which they play in the production of phenomena.

Mr. Swan relates a case in which the temporal bone was destroyed, and was removed by the process of exfoliation. The sympathetic nerve on that side was ulcerated, but so many other nerves were affected, and such various mischief was produced, that we cannot conceive the case to prove much in a physiological sense.

Mr. Swan relates the particulars of two experiments, performed with the view of determining the functions of the sympathetic. In the first experiment, a portion of the nerve was cut out on each side of the neck of a rabbit. No particular effect was produced. On killing the animal, three months afterwards, the extremities of the nerves were found to be united by new filaments. The second experiment was similar to the former, and so was the result. What they prove must be deemed of a negative quality.

Mr. Swan conducted some other experiments, for the purpose of ascertaining the manner in which inflammation of a part of the body produces constitutional irritation and fever. We will offer an abstract of an experiment of this description.

"At a quarter before 10, a.m., of Jan. 11, 1825, a piece of gamboge weighing 76 grains, was inserted in a wound between the shoulders in the back of a very large dog. He soon after began to be very uneasy. In the evening he lapped much water, and afterwards vomited. He purged in the night.

12th, at seven, a. m. He lies as if he were almost dead. He sometimes moves and howls, and then appears in a state of stupor. He cannot stand. At half-past nine he was in the same state. Whilst I was observing him, there was a violent spasm of all the muscles of the body, which lasted about a minute; he vomited at the same time. He died about eleven." 300.

The dog was examined at one, p. m.

All the ganglia of the sympathetic nerves were very highly inflamed.

The pia mater of the brain was rather more vascular than natural. There was a small quantity of serous fluid about the base of the brain. There was a very small quantity of serous fluid in the sheath formed by the spinal dura mater. The axillary nerves and the nervus vagus were more vascular than usual.

The liver and spleen displayed an increased vascularity. The stomach contained some half-digested food which had been eaten before the experiment was made. Its villous coat near the pylorus was very red; in the other parts there were numerous black spots, at each of which there was an ulcer, and the black part appeared to be coagulated blood. The villous coat of the small intestines had a very high degree of redness, and was ulcerated in many places. The mucous coat of the large intestines was more red than usual.

The wound in the back was closed; when its lips were separated, a quantity of gamboge, dissolved in the serum, flowed out, but some of it had insinuated itself amongst the cellular membrane, nearly as far as the elbow. There was a most violent and extensive inflammation of the cellular membrane, and a corresponding effusion of serum.

It will be noticed that we have Mr. Swan's authority for stating, that all the ganglia of the sympathetic nerves were highly inflamed. It is true that Mr. Swan does not enter into satisfactory particulars, nor inform us what appearances constituted inflammation. Yet Mr. Swan would seem to be satisfied, not only of the reality of the inflammatory state in this instance, but even of its general occurrence, in cases where constitutional irritation follows as a consequence of partial inflammation. He says:—

"After every accident in which the constitution sympathises with the injured part, I believe, the ganglia of the sympathetic nerves become irritated, and the functions of the parts supplied by their branches are disturbed in consequence. The action of the heart is increased in proportion to this degree of irritation in them, so long as it continues moderate." 304.

This general enunciation of opinion and of facts may spare us the necessity of special allusion to our author's cases. We may introduce another observation:—that, in consumption, and complaints attended by hectic fever, Mr. Swan has not found as increased vascularity of the ganglion of the sympathetic nerves; but that, should acute inflammation supervene, the symptoms change, and an increased action in the ganglia is the consequence. We will not pursue the subject of vascularity of the ganglia any further. It may fairly be presumed that Mr. Swan, acquainted as he is with the anatomy and the pathology of the nervous system, would not heedlessly mistake a casual or an insignificant appearance for a morbid change of decided character and important nature. His observations are therefore entitled to the attention of those who are inclined and enabled to follow up the investigation. We may add Mr. Swan's reasons for concluding that the appearance he describes is really inflammatory.

"Although I am well convinced, from numerous dissections, that the ganglia of the sympathetic nerves have a great vascularity, induced only by several medicines and diseases, yet some are inclined to think that this appearance is present in a state of health. In answer to this opinion, I beg to observe, that I examined an executed subject immediately after it was cut down, and found the ganglia of a pearly appearance, and free from any mark of vessels carrying red blood. I have found one ganglion very red from a number of vessels filled with blood, and the corresponding one nearly white; and I have so often observed this difference, and in such a marked degree in the same subject, as to leave no more doubt in my mind of its being the effect of inflammation, or something bordering on that state, than of similar appearances constituting the in-

flamed conjunctiva of one eye, and the uninflamed state of the other. If a judgment be formed from the appearances presented by an injected subject, it will be erroneous, for it is always impossible to speak decidedly of the natural degree of vascularity of any part which has undergone such a preparation. The ganglia may be made red by injection, and so may the conjunctiva of the eye; we may therefore fairly conclude, that if the injection fills numerous vessels of the eye, which could not be observed during life, that this appearance is equally foreign to the ganglia during health." 322.

The question may be asked—why such various symptoms should exist during life, when inflammation of the sympathetic ganglia is discovered after death? This reasonable query receives no satisfactory reply from Mr. Swan. Contenting himself, for the reasons he has stated, with believing that the appearances mentioned are inflammatory, he abandons the attempt at solving the difficulties which surround the production of symptoms. We cannot quit the subject without the observation, that, obscure as the pathology of the sympethetic is, we think that it is worthy of more minute attention than it seems to have hitherto received.

The last chapter of this work is occupied with the perplexing subject of Tetanus.

On Tetanus.

The researches of our author on the morbid changes which invade the sympathetic nerve, appear to have enabled him to triumph, in some degree, over the obscurity that shrouds from the common ken, the pathology of tetanus. The obstinate sceptic may hint that the dubious and hypothetical foundation is unable to support any stable edifice. Let the candid reader attend to Mr. Swan.

"With a view of removing as much as possible this obscurity, I have been induced to inquire how the body is usually affected after accidents. From that inquiry I have been led to state, that when a severe injury has been received, the ganglia of the sympathetic nerves become irritated, and consequently the parts to which they distribute nerves. When the constitution is healthy, I believe the irritation of the ganglia goes off in a few days, and then the parts supplied by them return to a state of quietude and again perform their healthy functions.

When the ganglia of the sympathetic nerves have been thus affected, and the irritation has subsided, an unhealthy action in the wound may excite a fresh irritation in them. Or even if the wound be healed, the passions, improper food, and other causes, may continue, reproduce, or increase the disordered state of the organs receiving nerves from the ganglia, and thereby excite a fresh irritation in them.

When the ganglia of the sympathetic nerves have once been in a state of irritation, I believe they are very susceptible of its renewal. When they have become again irritated, it may be readily conceived that the irritation, modified by the confinement during the healing of the wound, or by some disordered viscus, may be very different, and by this change made much more formidable in its consequences; and it may therefore be readily conceived, how in this state it may be communicated to many of the cerebral and all the spinal nerves, and from these to the spinal chord; thus producing tetanic spasms, varying according to the part of the sympathetic nerve most affected, as well as the extent and complexity of the irritation." 326.

We fear there is some ground for doubt and disbelief in the foregoing explanation of cause and consequence. The potential mood is liberally

used in describing the possible affections of the ganglia, and important circumstances are *believed* and *conceived*, when the rigorous reasoner might expect them to be proved.

Mr. Swan relates four cases and one experiment in order to display the affection of the sympathetic ganglia in tetanic cases. In the instance of the experiment tetanus was produced, and a rabbit was destroyed by the alkoholic extract of nux vomica. On examining the animal after death, all the ganglia of the sympathetic nerves, and especially those of the right side, had a considerable redness. The lumbar ganglia were less red than any of the rest. The par vagum was unusually vascular. The axillary plexus, especially of the right side, was rather more vascular than usual, and the same was observed respecting the sciatic nerves. The pia mater of the brain and spinal chord was very vascular; so were the absorbent glands, and the villous coat of the stomach. The lungs were very purple, and there was an increase of vascularity on the outside of the aorta.

The particulars of one case will afford an idea of the morbid appearances on which Mr. Swan has founded his opinions.

Case. The patient died on the sixth day from the commencement of the tetanus. He had been treated by turpentine and calomel and opium.

On examination after death, the spinal sheath was found to contain a small quantity of limpid fluid. Many adhesions were found between the loose arachnoid membrane and that lining the dura mater. On the loose arachnoid membrane there were a few small spots of cartilaginous matter. The veins of the pia mater were much loaded with blood. The spinal chord was divided in many places, and appeared perfectly healthy; but in the beginning of the dorsal portion there was a spot of coagulated blood, of the size of a small pin's head, in the midst of the medullary substance. There was an effusion of bloody serum between the arachnoid membrane and the pia mater of the brain, at the situation of the squamous portion of each temporal bone. The veins were turgid, but there was not any diseased appearance in the brain.

The visceral alterations were not numerous nor important. They consisted of congestion of the lungs—a patch of coagulable lymph upon the heart—vascularity of the mucous membrane of the stomach and the bladder. Blood was effused into the substance of each psoas muscle.

The par vagum in the neck was quite healthy, but at the root of the right lung the nerve had an increased vascularity, which did not exist in that of the opposite side.

There was an enlargement and a greatly increased vascularity of all the ganglia of the sympathetic nerves in the chest, and also of the semilunar ganglia; in several of those in the abdomen, the same appearance existed, only in a less degree, but in some there was neither the least redness nor enlargement.

As a summary of Mr. Swan's opinions, we may state that, although he does not intend to assert that tetanus is a specific complaint, entirely seated in the ganglia of the sympathetic; he conceives that those ganglia are the important parts of the nervous system, to which the first irritation tends, and from which it proceeds to the remainder of that system.

Mr. Swan relates some cases in which tetanus was evidently the conse-

quence of injury of a nerve. We will rapidly enumerate their chief particulars.

1. A patient was operated on in the old manner for popliteal aneurism, by Sir William Blizard. The aneurismal sac sloughed out, and the healing process was advancing, when Sir William endeavoured to extend the limb from the flexed position in which it had remained since the performance of the operation. The patient suddenly expressed agonizing pain, and within a few hours was seized with tetanus, of which she died. On dissection, the cutaneous nerve, which accompanies the lesser saphena vein, appeared to have been divided in the operation, and the inferior portion having become attached to the contiguous parts, had been stretched in the attempt to extend the limb. Such was the explanation of the occurrence of the pain and succeeding tetanus, which appeared most consistent with the facts.

2. In a case of tetanus which occurred to Dr. Hennen, the radial nerve was somewhat thickened, and a splinter of bone was sticking in it.

3. A case is mentioned by Dupuytren, in which a patient died from tetanus, after a small wound in the forearm, occasioned by a blow from a coach-whip. On examining the cicatrix, M. Dupuytren was greatly astonished to find a portion of the whip enveloped in the very substance of the cubital nerve.

3. Larrey relates three cases where it was produced by an injury of the larger nerves. In the first, the anterior crural and sciatic nerves had been injured by a ball; in the second, the median nerve had been tied with the brachial artery; and in the third, the nerves had been tied in amputation of the leg.

4. Mr. Swan possesses the thumb of a man in which there was a partial division of one of the dorsal branches of the radial nerve, the semilunar ganglia were also highly vascular.

5. To these cases related by our author we may add two others which occurred at St. George's Hospital. The first was that of a man who was stuck with a pitchfork, in the outside of the leg. He died of tetanus. On examination of the limb, it was found that the pitchfork had wounded the peroneal nerve, and that a sort of nodule, the result of inflammatory action and thickening, was developed in its substance. The second case was that of a boy, who slightly wounded the sole of his foot, in climbing over some iron railings. He died of tetanus. The spike was found to have injured the internal plantar nerve, which displayed such a thickening as that described in the preceding instance.

It is possible that, in other cases, a superficial examination of the injured part may have failed to observe the implication of the larger nerves or their branches; it is probable that in many instances, the smaller twigs may be more or less involved in the cicatrix.

The frequent failure of amputation of the wounded part has destroyed the confidence of surgeons in the measure. Yet cases have been published, in which it would seem to have produced a cure. Division of a nerve succeeded in a case detailed by Dr. Murray, in the Medical Gazette for February, 1833. The wound was in the sole of the foot, and had been inflicted by a rusty nail. The posterior tibial nerve was divided, and the patient recovered.

Larrey relates two cases, in which incisions were beneficial. They are practically interesting.

"The first was that of a man who was struck by a ball, which crossed the right arm, and wounded the biceps and coraco-brachial muscles, and the radial and internal cutaneous nerves. On the eighth day he began to have great pain; and it was wished to divide a bridge left by the wound, in which were found some branches of the internal cutaneous nerve, but the patient refused to have it done. The next day his local pains were very acute; he had convulsive motions of the hand and fore-arm, heat in the whole system, and locked jaw; he was very restless, and in continual agitation. The rapid progress of the symptoms determined Larrey to divide the bridge, and cut the bottom of the wound, where he found several nervous bridles. This operation was very painful; but two hours afterwards the patient was much relieved, and in the space of two days all the symptoms disappeared.

"The second was that of a man who received an injury from a spear on the right side of the forehead. The point of the spear had slided obliquely from below upwards and inwards under the pericranium, so as to make a deep fissure in the frontal bone: one of the superciliary nerves was grazed by the cutting side of the spear. Nine days passed without any alarming symptoms, and it was considered as a simple wound; but in the night between the ninth and tenth days tetanus came on, with convulsive motions of the corresponding eye-lids, and a loss of sight in that eye: there was a little mental wandering, a very acute pain, locked jaw, and a very marked disposition to emprosthonos. Emollients were immediately applied to the wound, and diaphoretic and opiate draughts were given without effect; the complaints went on increasing, and in twenty-four hours would have been at their greatest height. The wound was then examined with a probe, which gave very acute pain; this determined Larrey to divide from below upwards with a bistoury the whole of the superciliary muscle, the nerves, and vessels: the patient was immediately relieved, and in less than twenty-four hours all the tetanic symptoms had disappeared." 345.

Mr. Swan hints his method of treatment with diffident suspicion. He advises general and local blood-letting—calomel with purgatives to restore the secretions—and such medicines as Dover's powder afterwards. It is much to be lamented that, however plausible such remedies may seem, experience, the rigid judge of their real value, has already tried, and found them wanting.

Here, then, we part from Mr. Swan. We think he is deficient in the useful, indeed the necessary, qualities of method and of condensation. We trust that the next edition will appear with emendations, corrections, and reductions. It contains many valuable, and some unimportant facts—some ingenious, and some rather trivial reasoning. We have endeavoured to select the better portions, and have avoided, as much as possible, the occasion for criticism. Again, we would recommend Mr. Swan to follow old Selden's advice, and employ his time in making his book shorter.

A TREATISE ON THE CIRCULATION OF THE BLOOD. By *J. F. Handley*. Chipping Norton. Octavo, pp. 33. 1834.

WE have neither much space nor patience to devote to a review of this strange production, although every page might afford room for ill-natured criticism to the philologist, as well as to the physiologist. Here is a sample of the whole—a brick, which may be taken as a specimen of the building. At page 14, the reader is informed—

"I do not hesitate, therefore, to say, that atmospheric air is necessary to be received into the lungs, not to stimulate the fibres of the heart and bloodvessels, but to re-establish the currency of the fluid, after it has become effete by passing through the different channels of the body; that the force with which it circulates is regained at the commencement of the pulmonary veins, and completely exhausted at the termination of the pulmonary arteries; and that the effect derived from the mixture of atmospheric air with the blood is not to give it stimulum, but to bend with it an elastic and expansive force, by which means it obtains its moving impulse; but in what manner I shall attempt hereafter to explain." 15.

It would seem, from the tenor of this sentence, as well as from some remarks further on, that the blood, during its pulmonary circulation, becomes completely saturated, to the maximum point, with air, which is absorbed, in our author's opinion, in immense quantities, and imparts a high elastic resistance to the arterial mass; and that, in short, it is in the state of a powerfully-condensed or compressed vapour or gas, ready to dilate itself whenever the pressure is removed. At page 22, the announcement is made—

"That every particle of blood in the whole body, by repeated exposures, becomes impregnated with atmospheric air, inasmuch as it maintains an affinity for it; and that according to the diminution of the number of the vessels which contain it, so will be the increase of its velocity, that is to say, its force will be concentrated by accumulation; for if the elastic force of the fluid contained in each vessel of the rete mirabile, supposing that there are 1000 vessels, be as one, then the same force as it flows through the pulmonary veins, being reduced to four in number, will be 250 times greater than in each vessel of the rete mirabile; and when it arrives at the left auricle of the heart, being there contained in one vessel, its force will be a thousand times greater: and hence it will appear how absolutely necessary it is that the left auricle and ventricle of the heart (but particularly the ventricle for that alone receives the force of its entire accumulation) should be well fortified against such an impetuous rush of the fluid into their cavities. It is on this account that the strong muscular fibres of the heart are given, that is to resist, and by their resilience, throw back the force of the fluid upon itself, so as to propel it forward till it gradually loses its force in distribution; and thus according to this theory, the greatest velocity of the blood will be in the left auricle and ventricle of the heart—the least in the termination of the arteries." 22.

Then follows the explanation of the circulation in the veins. The key to the explanation is in the following sentence.

"Every solid substance or liquid portion of matter will gravitate to a fixed point is a well-known fact; therefore we will suppose the whole body to be perpetually gravitating towards its centre, that is, every superficial part of it is

pressing in that direction; now allowing this to be the case, as indeed it is, the lighter parts will give place to the heavier, so that the blood which flows through the vessels of the skin will actually receive its weight. Now as the skin and different organs of the body are specifically heavier than the blood itself, it must necessarily follow, that the blood will be pressed by them in a direction contrary to that in which the force of such pressure is applied to it, so that it must either flow forwards in the veins, or backwards into the arteries again." 23.

This is a most unlooked-for application of the doctrine of centripetal forces to the science of physiology; and the precision of anatomical facts is made subservient, by our author's plastic mind, to the confirmation of his peculiar views. As the thickness and strength of the left ventricle and auricle of the heart are supposed to be indicative of the very powerful expansive or elastic force of the aërated blood, so it is ingeniously imagined by our fanciful author, that the right side cavities are of considerable thickness and strength, for the purpose of being fortified against the force of the gravitating venous blood. But enough of these reveries.

Some of the words and phrases of Mr. Handley deserve a new dictionary on their own account—for example, "sarcous substance," "currency of the blood," "the fibres retort the fluid," "refellent," "energizes," &c. Alas! for the cacoethes scribendi!

A TREATISE ON THE DISEASES OF THE SKIN. By *P. Rayer*, D.M.P. Translated from the French, by *W. B. Dickinson*, Octavo, pp. 398. London, 1833.

THE nosology of cutaneous affections has been one of the most puzzling problems in medical science; and perhaps there is no set of diseases, of which the classification is so far from being determinate and satisfactory, even at the present day. It would not be necessary to allude to the thousand and one errors which were partly caused, and partly increased, by the adoption of a vague and most unscientific nomenclature, were it not that our Continental brethren have almost uniformly, until the appearance of Rayer's admirable work, retained some of its most annoying absurdities; witness the manifold and incongruous meanings of those words, "teigne" and "dartre," not only in the writings of Alibert, but also in those of most of the best French authors. We are told that it "was common to designate under the former name all chronic inflammation of the hairy scalp, and, under the latter, all chronic inflammations, and some acute diseases, of the face, the trunk, and the limbs." Not to speak of the absurdity of giving different names to the same disease, according to the part of the body where it appears (as well might a botanist make different species of a plant from its being found on walls, or in meadows, or in woods), let us glance at the subdivisions of the generic "dartre;" Alibert enumerates seven species, viz. the crustaceous, erythemoid, furfuraceous, phlyctenoid, pustular, corroding, and the squamous—such a confused hotch-potch of contrary things! By far the most rational attempt at the classification of skin diseases, previous

to the publication of Willan's immortal work (which we are ready to confess was indebted, in some respects, to its predecessor), was Plenck's "Doctrina de Morbis Cutaneis," printed in 1796: he formed 14 classes—maculæ, pustulæ, vesiculæ, bullæ, papulæ, crustæ, squamæ, callositates, excrescentiæ, ulcera, vulnera, insecta cutanea, morbi unguium, morbi capillorum. Willan very properly struck out several of these divisions, and reduced them to eight: and so satisfied has the profession been with the superiority of the arrangement proposed by him, that, with but a few exceptions, it has been universally adopted, and with great propriety; for the main errors which it is possible to charge against it, seem almost inseparable from the nature of the subject; many of the diseases being of so Proteiform a character, that they defy any simple and exclusive arrangement in a nosological catalogue. The correctness of this remark seems amply warranted, by the very results of the attempts made by Rayer and others, to amend what was deemed faulty or defective in Willan's system. We agree with them in some of their objections to particular parts of it; purpura hæmorrhagica ought not, perhaps, to be associated with measles among the exanthemata—pemphigus and pompholix need not have been separated—scabies or psora is oftener a papular or a vesicular, than a pustular disease—acne and sycosis belong much rather to the class of pustules, than of tubercles; and there is no notice taken of the morbid changes of the hair, nails, &c. All this is true, and we admit that some modifications (especially the retrenchment of many of the species) may, with advantage, be introduced into Willan's arrangement; but it still is, and in our opinion will long continue to be, the guide of medical men in investigating the diseases of which it treats. Plumbe and Rayer, who have commented upon its imperfections, have each proposed a classification of their own: with that of the former, founded partly upon anatomical, partly upon physiological, and partly, also, upon pathological speculations, we mean not to deal; the profession, while approving of the "Praccal Treatise on the Diseases of the Skin," has not, and we think justly, adopted the arrangement which the author has employed; we shall, therefore, proceed to lay before our readers that on which the work now under review is founded. The following synoptical table presents us with a view of the—

CLASSIFICATION.

SECTION I.

DISEASES OF THE SKIN.

CHAPTER I.
Inflammations of the Skin.

1°. *Exanthematous:* Rubeola, roseola, scarlatina, urticaria, erythema, erysipelas.
2°. *Bullous:* Vesication, ampullæ, pemphigus, rupia, zona.
3°. *Vesiculous:* Herpes, psora, eczema, miliaria.
4°. *Pustulous:* Varicella, variola, vaccina, vaccinella, ecythma, cuperosa, mentagra, impetigo, tinea, artifical pustules.
5°. *Furunculous:* Hordeolum, furuncle, anthrax.
6°. *Papulous:* Strophulus, lichen, prurigo.
7°. *Tuberculous:* Lupus, cancer, elephantiasis of the Greeks.

8°. *Squamous:* Lepra psoriasis, pityriasis.
9°. *Linear:* Fissures.
10°. *Gangrenous:* Malign pustule, carbuncle of the plague.
11°. *Multiform:* Burns, frost-bite, syphilitic eruptions.

CHAPTER II. *Cutaneous and Subcutaneous Congestions and Hæmorrhages.* — Cyanosis, vibices, petechiæ, purpura hemorrhagica, ecchymosis, dermatorrhagia.

CHAPTER III. *Neuroses of the Skin.* — Exaltation, diminution, abolition of the sensibility of the skin, without appreciable alteration in the texture of this membrane.

CHAPTER IV. *Alterations in the Colour of the Skin.*
- *Decoloration*
  - Leucopathia { Partial / General
  - Chlorosis
- *Accidental Colorations* — Ephelis, lentigo, chloasma, meladermis, icterus, *nævus maculosus*, bronze tint produced by the internal use of lunar caustic.

CHAPTER V. *Morbid Secretion.* — Ephidrosis, acne,* folliculous tumors.

CHAPTER VI. *Defects of Conformation and Texture; Hypertrophies, & Accidental Productions.* — Distention of the skin; cicatrices, vegetations, nævus hæmatodes, subcutaneous vascular tumors; warts, pearly granulations; corns, icthyosis, horny appendages.

SECTION II.

ALTERATIONS OF THE APPENDAGES OF THE SKIN.

CHAPTER I. *Alterations of the Nails, and of the Skin which produces them.* — Onyxis; increased growth of the nails; spots, change of colour, fall, desquamation, reproduction, &c. of the nails.

CHAPTER II. *Alterations of the Hair, and of the Follicles which produce it.* — Inflammation of the bulbs of the hair; accidental coloration, canities; alopecia; matting of the hair; plica; accidental pilous tissue.

SECTION III.

FOREIGN BODIES OBSERVED ON THE SURFACE, OR IN THE SUBSTANCE OF THE SKIN.

- *Inanimate.* — Dirt, dirt of the scalp of new-born children; inorganic matters, artificial colorations.
- *Animate.* — *Pediculus, humani corporis; P. capitis; P. pubis: pulex irritans, P. penétrans; acarus scabiei; æstrus; gordius.*

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* "This is the acne *punctata* of Bateman; the French term, *tannes*, is hardly to be rendered into English; *grub*, I believe, is the vulgar term for this affection.—T."

SECTION IV.

DISEASES PRIMARILY FOREIGN TO THE SKIN, BUT WHICH SOMETIMES PRODUCE PECULIAR ALTERATIONS IN THIS MEMBRANE.

Elephantiasis of the Arabs."—*Introduction, p.* xxvii.

Our remarks must necessarily be limited to the first and fourth sections—the second and third, it will be observed, appertain to the appendages of the skin, and may, therefore, at least for our present consideration, be excluded, especially as the title-page of the work professes to treat only of the "Diseases of the Skin."

The first impression left on the mind, from an examination of this classification, is the analogy which exists between its principles and those of the nosology of Cullen; we have the inflammations, or phlegmasiæ—the hæmorrhages—the neuroses, or nervous diseases—and the other three chapters might, with some propriety, be classed under the general term of cachexiæ. We may, therefore, presume that several, at least, of the objections which have been urged against the one, are not inapplicable to the other. We do not, it must be obvious, mean to say that the orders of Rayer are exactly parallel to, or correspond with, those of Cullen—the first glance must satisfy us that this is not the case; the lepra of the one is a phlegmasia, and a cachectic impetigo of the other; the psora of Cullen is most preposterously arranged as a local dialysis, or, in other words, a broken surface, whereas it is a vesicular inflammation of Rayer; but the principle which has led the latter to refer so many and so different diseases to his first chapter, is essentially the same which prompted the former to call diarrhœa and diabetes nervous diseases, and to attribute all the various forms of dropsy to a cachectic state of the constitution; in short, theory is the basis of a large portion of both systems, and is the pervading error in both. There is no difficulty in adducing a score of proofs, to shew how largely imbued with theory the system of Rayer is—take, for example, the eighth order, the squamous inflammations of the skin: it comprises three diseases, lepra, psoriasis, and pityriasis; now, not to allude to some of the varieties of the two former diseases, it is surely giving an almost illimitable extension to the word inflammation, to apply it to the majority of cases of pityriasis. Are they attended with pain, heat, redness and swelling? Assuredly not; and although the itching be sometimes troublesome, yet we cannot bring our minds to the conclusion, that therefore there must be some degree of inflammatory action present. Then again, that singular disease, icthyosis, is banished from this order, because we are told "that it is almost always congenital, or developed in the first few months after birth, and is not attended either by sanguineous injection of the skin, morbid heat, itching, or by any other sign of inflammation;" the same may be said, however, of many old cases of lepra itself, and the circumstance of nearly the same treatment being found serviceable in both diseases adds not a little probability, that their proximate or essential causes are somewhat allied.

That most distressing malady, "prurigo," may also be adduced, as another instance of the extreme latitude which it is necessary to give to our idea of inflammation, if we are to assent entirely to Rayer's classification. The skin is often, nay generally, as pale as in health; there is frequently little or no elevation of the surface; there is certainly no pain, although

there may be an intolerable itching: the disease, indeed, appears to be one which affects the cutaneous nerves, much rather than the cutaneous blood-vessels, and it may be, therefore, referred, with quite as much propriety, to the order neuroses as to that of phlegmasiæ. Here, too, the appropriate treatment, at least in a vast number of cases, is the very reverse of the antiphlogistic, unless, indeed, we are to reckon stimulating lotions, bark and other tonics, opium, and so forth, as such.

If the preceding instances shew that not a little compulsion, nay, absolute violence, must be used, to force some of the members of Rayer's inflammatory diseases into his first section, what shall our readers say when they turn their eyes to the ninth order, which has received the classic name of "linear inflammations," vulgarly denominated "chaps," or cracks of the skin—and when they find that chapped feet, ulcerated nipples, the fissures in the skin, so common in dropsy and during pregnancy, have all, more or less, the features of inflammatory action. Then, again, is it right that the Proteiform class of eruptions, which succeed to primary syphilis, are classed among inflammatory diseases? Certainly not—if we are to attach the ordinary meaning to the word inflammation; for they neither have, at least in a multitude of cases, the outward and visible signs of increased action, nor are they attended with the constitutional symptoms of active pyrexia, and lastly the successful mode of treatment consists rather in strengthening the powers of the system than in lowering them. These arguments cannot, in our judgment, be gainsayed, or answered, and afford sufficient grounds for withholding our entire assent to the classification of Rayer, in all its details. If there was need of any more, we might allude to the exclusion of the various forms of acne, and of follicular tumors from the first section, and their insertion in the fifth. True it may be, that in these diseases the secretions of the skin may be morbid; we do not deny it; but the simple question which we propose is, whether there is no attendant inflammation at the same time; and if there is, how comes it that they are not classed with the other inflammations. One other remark upon the arrangement and we have done.

It may be fairly doubted, whether the elephantiasis of the Greeks, the elephantiasis of the Arabians, and the production of what have been called "mamillated excrescences" on the skin, ought to be viewed as diseases so widely different from each other as to require that all three be put into different sections of the code. Our knowledge indeed of the morbid changes connected with the diseases now mentioned, is, it must be confessed, far too imperfect to warrant us in giving a decided opinion either way; but we think that it would have been wiser to have brought them nearer together, with the view, had there been no other reason, to compare and contrast them together.

We had almost forgot to allude to the capricious arrangement of the orders in the first section; ought not the papulous diseases to precede the bullous, vesiculous, pustulous and tuberculous, for the very good reasoning, that these four last forms of cutaneous disease very generally exhibit a papulous appearance at first? and again, two of the members of the tuberculous order seem very much akin to those of the ninth or gangrenous.

Such are some of the objections which may be urged against our author's method of classifying the diseases of the skin; and we are the more anxi-

ous to direct the attention of our readers to the consideration of what has been stated above, as the prevailing doctrine of the whole work, not only in regard to the nosology proposed, but equally so, to the treatment recommended, is, that inflammation in some form, part, or organ, is an almost invariable and necessary accompaniment of cutaneous eruption. Every page of the work before us bears testimony that Rayer is a most fond admirer of the Broussaist creed; we think, extravagantly so; because, while we admit that the "Physiological Physician" of the Val de Grace, deserves well of the profession for having introduced a more rigorous and comprehensive method of examining all the symptoms of a disease, and for having disabused our minds of many of the phantom dangers of debility, he seems to us to have overstepped the bounds of legitimate deduction, and to have inferred the existence of his "favourite disease," although neither indicated by symptoms during life, nor verified by necroscopic inquiry. The mischievous effects of ultra-Broussaism may not indeed be so great as those of an opposite system; but both are bad; and bad, because they are exclusive. The practice of a physician attaching himself to one particular doctrine, which is made applicable to all diseases, and to all circumstances of disease, arises, we fear, too often from mere selfish and mercenary motives; the love of notoriety, and the ambition of success are dangerous enemies to quiet thought and cautious reasoning; and when to these impulses is added the obstinacy of wounded pride, or of audacious conceit, or of arrogant ignorance, we need not wonder that strict veracity is sometimes sacrificed to pompous display. Now, we do not mean to impeach the good faith of M. Broussais and of his disciples; but we must certainly question their candour or clear-sightedness. They cannot possibly have failed to observe, and if so, they ought to acknowledge, that patients labouring under their supposed gastro-enteritis have in a thousand instances speedily recovered under the use of occasional aperients and of a light bitter tonic, after having been subjected to leeching, and leeching, and leeching, and to all the ills of a most rigid "diete methodique." We again confess that benefit, decided benefit, has been derived from the more scruitinizing method of examining disease introduced of late years by the physiological physicians of Paris; for the grand aim and object of a skilful practitioner will ever be to arrive at a correct diagnosis of his patient's case; and the knowledge of this cannot be acquired except by a diligent and most inquisitive examination of all the leading functions of the body; of sensation, of motion, of digestion and assimilation, of respiration and so forth; and if this be uniformly done, with a mind unfettered by the opinions of others, and unprepossessed with any favourite doctrines, we venture most unequivocally to assert, that no exclusive system of therapeutics will be received as all-curing or catholic.

The "purgez a droit" and "saignez a gauche" practice, must therefore be deprecated, at least to the extent to which it has been carried within the last five and twenty years. The weapons of ridicule and satire are often more effectful in conquering prejudice and error, than those of grave reasoning, and we doubt not that the wit of a Le Sage or of a Moliere could, within the compass of a single page, most triumphantly annihilate the many goodly volumes which have so long been received as gospel truth by a wondering profession. We have been led to make these few remarks by the

perusal of the work before us; we think that it is too largely imbued with one doctrine throughout; a doctrine, which however useful in many of its precepts, is apt to be carried to an extravagant extent, and to lead to a practice often most unsatisfactory, and sometimes decidedly pernicious; for example, we are told that a stye on the eyelid is very generally indicative of internal inflammation; "Hordeolum almost always coincides with gastro-enteritis." Surely this was what Sterne would have called "rather too hobby horsical." Indeed the author himself seems on one occasion to be aware of this; for at page, xvi. of the introduction (which by the bye is a most admirable essay, and in itself would render the present work well worthy of study) we find it stated—

"Up to the present time but a very small number of anatomical researches have been made on diseases of the skin. Among the authors who have seen and pointed out the importance of them, there are some who have given them a false direction, in pointing their attention principally to internal lesions of the lungs, digestive organs, and uterus, which have taken place accidentally in individuals attacked by chronic diseases of the teguments; but that these observations have been of some utility, is shown by their having proved, by numerous examinations of the body, that these internal lesions more frequently coincide with inflammations of the skin, than several other affections which may be equally complicated with them. New anatomical researches on the structure of the alterations of the teguments have furnished me with valuable characters for the distinction of various forms of phlegmasiæ; and I have given, in the history of rubeola, erysipelas, variola, tinea favosa, purpura hemorrhagica, onyxis, itchyosis, &c. some anatomical details which have not perhaps been hitherto published with equal accuracy."—*Introd.* xvii.

We quite coincide in the correctness of these opinions. Before proceeding to the examination (necessarily a short one) of the contents of this volume, the following remarks on the delineation of skin diseases are so just, that we cannot do better than extract them.

"Some authors have endeavoured to make their descriptions of these diseases more striking by the aid of coloured figures: the two most beautiful collections of this sort are, without exception, those of Willan and Bateman,* and of Alibert.† Most of these plates exhibit, however, only one of the stages of the inflammation which they are intended to represent. Thus it happens, that some diseases described as *pustulous* have been exhibited in the *squamous* state; that some others also, placed among the *pustulæ*, have been represented in the *tuberculous* state; that others, lastly, have been only drawn in the state of *crusts*, a secondary character, and common to several very different forms of *phlegmasiæ*. These faults I have endeavoured to avoid in arranging the plates of this work.‡ The primary forms of the inflammations of the skin, and the alterations which succeed them, have been represented carefully after nature, or the best engravings that have been published.

Figures of the natural size, in which the head, trunk, limbs, or whole body, are represented, would be out of place in an elementary work; while, on the

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* Bateman (Th.) *Delineations of Cutaneous Diseases*, 4to. London, 1817.

† Alibert. *Op. cit.*

‡ Mr. Dickenson has committed the egregious blunder of frequently referring to particular plates, attached to Rayer's work; and yet we find that he has not published any of them.

other hand, they would only have the trifling advantage of exhibiting the same alterations in a greater number of points: a hundred pustules, or twenty tubercles of cuperosa, for example, scattered over the face of a woman, with a design of the head and bust given, and additions more less elegant, do not yield a juster idea of the pustulous form of this affection, and of the tubercles by which it sometimes terminates, than does a piece of skin on which these alterations are shewn. Lastly, some papulæ of prurigo or lichen, a few squamous plates of lepra or psoriasis, &c. suffice to make known the character of these diseases, without its being necessary to represent all the regions of the body upon which they have been observed."—*Introd.* xviii.

The first order, the exanthematous, comprises six genera, five of which belong to Willan's exanthematous order, viz. rubeola, roseola, scarlatina, urticaria, erythema, and erysipelas. Rayer is decidedly right in excluding purpura from this order, and in admitting erysipelas, which Willan strangely enough separated from erythema—only a milder form of itself.

"The red tint produced by the effusion of blood into the subcutaneous cellular tissue or skin, differs so much from that of the exanthemata, that we are at a loss to conceive how two such observant men as Willan and Bateman could see any resemblance between petechiæ, purpura hæmorrhagica, and the exanthemata. In the latter the red tint is obscure, and the diagnosis more difficult in negroes than in whites.

Exanthemata are sometimes complicated with other, and particularly with papulous, vesiculous, and bullous inflammations of the skin. Thus, intense erysipelas, abandoned to itself, is frequently surmounted by bullæ similar to those of pemphigus. In this point of view, it seems to form an intermediate link between exanthematous and bullous inflammation." 9.

The general scope of treatment, in the exanthemata, is well and clearly stated in the following extract.

"They require the antiphlogistic treatment and diet. When caused by miasmatic poisoning. this treatment must be followed with more reserve. We must not expect to cut them short by repeated bleeding, as has been advised by some pathologists. It is important also to keep in mind, that inflammations of the gastro-pulmonary mucous membrane present a prominent feature in exanthematous diseases of the skin, and that it is to this, above all other complications, that the attention of the practitioner should be directed. The moment symptoms of these internal phlogoses are observed, they should be narrowly watched, and, if intense, subdued; treating them nearly as if the cutaneous affection was not present. These gastro-pulmonary inflammations sometimes survive that of the skin. They require more cautious treatment during convalescence, as a careless regimen or injudicious medicine may aggravate them, and so become the cause of a more or less grave relapse." 9.

In the description of rubeola, we are told that this disease "differs from roseola, not only in the form of the exanthema, but also by the gastro-intestinal inflammation which accompanies it;" and yet, a few pages further on, it is stated that "this fugacious inflammation (roseola) is often connected with gastro-enteritis, which may either precede, accompany, or continue after it has disappeared;" and, to add to this confusion, in the very same page from which this latter extract is taken, we are informed how to distinguish the two diseases, thus:

"In Rubeola, the eruption, usually preceded and accompanied by a gastro-bronchitis, takes place regularly the fourth day of a febrile affection; it is prolonged till the seventh or eighth, and during convalescence gastro-pulmonary

inflammations, more or less severe, frequently supervene. In roseola the eruption appears without any obvious cause, or it may seem to depend on the existence of some other cutaneous inflammation, or on phlogosis of the gastro-pulmonary mucous membrane:" 19.

An apt illustration, among many others, of the indiscreet adoption, by our author, of the Broussian doctrines. It has been a question among medical men, whether Willan is right in admitting, as distinct species of the genera rubeola and scarlatina, those forms of the diseases, in which either the exanthema is absent, while the other symptoms, such as the catarrh in the one case, and the affection of the throat in the other, are present; or in which the exanthema exists, unattended with these symptoms now mentioned—thus, authors mention a "rubeola sine catarrho," and "a scarlet fever without eruption." Rayer says—

"Most of those cases entitled *rubeola without catarrh*, and mentioned in some treatises, are really nothing more than cases of roseola or erythema. The presence of the exanthema prevents the disease from being confounded with pulmonary catarrh. Those pretended cases of *measles without eruption* would more properly be entitled to the name of *catarrh without measles:* for, even supposing that the gastro-pulmonary inflammations that are observed during epidemics of measles, to be produced by the specific cause of this latter, still they present no peculiar characters distinguishing them from ordinary phlegmasiæ of the air and digestive passages, or anything to authorize us to consider them as varieties of rubeola." 13.

These sentiments we consider to be too absolute; for there can be no doubt that, during the prevalence of an epidemic, either of measles or of scarlatina, it is by no means unfrequent to observe among the members of the same family, living together, and exposed to the same influences, some affected with the genuine disease, we mean that form in which both the internal and external symptoms are present, while others exhibit only one set of them. Now, under these circumstances, we consider it to be rather a stretch of incredulity, to deny the identity of the two affections; still it is possible that they are indeed different; and, perhaps, the only satisfactory method of deciding the question is, to ascertain whether those patients in whom only one set of the symptoms shew themselves, be as effectually secured against a return of the disease as the others. The question is not easily solved; but we can see no other way of doing so, but that we have now mentioned.

In the account given of the diagnosis between the exanthema of scarlatina, and that of roseola, it is laid down that—

"The tint of Scarlatina is much brighter, and more permanent and uniform than that of roseola. In scarlatina the redness disappears on pressure, and takes place again from the circumference towards the centre of the finger print, when the pressure is removed; while in roseola, the morbid coloration collects indiscriminately upon all the points which had been subjected to pressure." 20.

Is this distinctive character uniformly correct? Our own experience does not warrant us to decide. A much more important topic, appertaining to scarlatina, arrests our attention. So essentially inflammatory is this disease, in our author's opinion, that he hesitates not to affirm that, just in proportion to its severity and danger, so is the amount of inflammation present,

and so, therefore, ought to be the activity of the antiphlogistic treatment. The narrative of the worst species, the scarlatina maligna, is thus very faithfully given.

"It comes on like scarlatina anginosa, and in the course of two or three days is characterised by symptoms of extreme gravity. The appearance of the exanthema is tardy, its colour feeble and livid, mixed with petechiæ, and its duration is uncertain. It may disappear and reappear several times. The pulse is small and irregular, the teeth and tongue are covered with brown or black crusts, the eyes are greatly injected and sight confused, the cheeks are of a deep-red colour; there exists also deafness and delirium in adults; coma and agitation in children; fetid breath, difficult laborious respiration, increased by the thick viscid mucosities deposited in the pharynx; deglutition is difficult or impossible, with constriction of the jaws, and a blackish exudation on the surface of the amygdalæ and neighbouring parts. A continual coma, difficulty of respiration, abundant diarrhœa, and formation of numerous petechiæ, announce approaching death. The few patients who survive these sufferings are then attacked by inflammations of the air-passages and digestive organs, which remain after the cure of the exanthema. Gangrenous eschars are often found over the trochanters and sacrum: they are followed by extensive ulcerations, the difficult cure of which lengthens convalescence. When associated with chronic cæco-colitis, these ulcerations are always dangerous, and sometimes fatal." 24.

This frightful form of the disease is occasioned, we are told, "by the simultaneous or successive inflammation of the pharynx, skin, stomach, intestines, larynx, and brain" (by the way, a strange mode of arrangement): and in the description of the treatment it is stated, that—

"In scarlatina *anginosa*, bleeding from the arm or foot, the application of leeches to the neck or epigastrium, mild sinapisms to the feet, emollient cataplasms to the throat, mucilaginous drinks, &c. are usually indicated. In scarlatina *maligna*, or, to use a more accurate expression, scarlatina complicated with intense inflammation of the pharynx, stomach, intestines, and bronchia, cerebral congestion, or arachnitis, &c. the antiphlogistic measures should be more active, according to the gravity of these different affections." 27.

Well may the author add, "we must not carry the bleedings so far as in themselves to become dangerous; and judgment is requisite here as well as in the treatment of other inflammations."

The above practice, in the extent recommended, we hesitate not to denounce as most murderous: it is a gross and fatal error to believe that the malignancy of this, and of other putrid diseases, is attributable solely to the extent or severity of the existing inflammation; and the consequences of its adoption have been quite as fatal as those ever caused by the humoral pathology. The only rational, and certainly the only safe doctrine upon which we can proceed in the treatment of such diseases, is one compounded partly of the Broussaian and partly of the humoral principles;—that the condition of the blood and of the secretions is materially altered (we speak neither of the nature nor of the cause of the alteration) even from the first, no one, who uses his eyes and will speak the truth, can for a moment deny; and equally true it is, that an inflammation, or congestion, or something akin to these morbid states, does exist at the same time in some parts or organs of the body. We challenge the most enthusiastic of either sect to gainsay either of these propositions; and yet, strange to tell, in spite of

their reason, they almost wilfully shut their eyes to the truth, and make their practice belie their convictions. We again repeat, that the only rational view of the subject is to study all the symptoms, and to exclude none; to examine the blood, to examine the secretions, the state of every organ as far as we can, to discover, if possible, whether any be more oppressed or affected than another; to watch the effects of the remedies employed, and all the time to keep our minds from being swayed by any preconceived or pre-adopted theories. What may be termed the "eclectic" mode of treatment is therefore decidedly the best; viz. to apply leeches where congestion or inflammation is ascertained to exist, to exhibit salines or vegetable acids, to sponge the surface repeatedly with antiseptic lotions, such as the solutions of the chlorides, to regulate the secretions, and, if necessary, not to withhold stimulants, of which by far the best is ammonia—it is much preferable to any spirituous and vinous preparations. Should these last be necessary, it will be proper to exhibit them in effervescing draughts; and we avail ourselves of the present opportunity of strongly recommending a modification of these draughts, which we have been long in the habit of using with most satisfactory success in many malignant or putrid diseases. The addition which we make is 15 grains or a scruple of common salt, (muriate of soda,) and a small tea-spoonful of the spiritus ætheris nitrici. The draught should be repeated every two or three hours.

The chapter on erythema and erysipelas is exceedingly good, and merits commendation throughout, with the exception of the following sentence.

"Since Dessault, most French pathologists recommend the administration of an emetic at the outset of erysipelas. It produces a salutary effect when this affection has followed wounds of the head, but is dangerous when gastro-enteritis exists, the morbid phenomena of which have been designated collectively under the names of *bilious plethora*, *intestinal* or *gastric irritation*, *bilious fever*, &c., though in these cases it has been more especially recommended." 48.

Bullous Inflammations. On referring to the synoptical table at the commencement of this article, it will be observed that five diseases belong to this order. Willan has only three, viz. erysipelas, pemphigus, and pompholyx;—this is one of the most faulty parts of his system. Erysipelas, as we have already stated, belongs rather to the exanthemata; the bullæ being quite accidental, or, at least, by no means essential to the disease:—then again, pemphigus and pompholyx are assuredly not distinct diseases; the mere presence or absence of febrile symptoms is not sufficient to warrant Dr. Bateman in saying that they "differ most materially" from each other.

The transference of rupia from the order "vesiculæ" to that of the "bullæ" is of questionable propriety; and the very description which Rayer has given, applies much better to a vesicular than to a bullar disease. He says, "The bullæ are small, distinct, and flat, with inflamed bases, containing a transparent humour, which gradually becomes turbid, puriform, and the bullæ are transformed into thick, chocolate-coloured crusts, from the dessication of the serous sanguinolent fluid." Sometimes indeed these crusts become large and very prominent, so as to resemble limpet-shells; but they are very different from the dried bullæ or bladders, as seen in pemphigus. Rupia appears to be a disease intermediate between the vesicular and the pustular orders; it has, moreover, many points of affinity to ecthyma; they

both occur under similar cachectic states of the constitution, and the same mode of treatment is applicable to both: for practical purposes, therefore, they may be viewed as one disease. Indeed it is often quite impossible to draw any strong lines of discrimination between some cutaneous affections, the interval between them being quite hazy and indistinct.

With respect to zona, we have no doubt in saying that Rayer is wrong when he places it among the "bullæ;" it is most decidedly a vesicular disease; and a critical reader cannot fail to be surprised at finding the author himself admitting that "zona indeed really differs from the herpes phlyctenoides *only* in the singular form it assumes," as its very name imports; for whatever be its seat, "zona shews itself under the form of a semicircular band of more or less extent, covering part of the trunk or of a limb." Perhaps it would be strictly more correct to designate rupia and zona as bullo-vesiculous than as simply bullous or vesiculous diseases; but as the object of nosology is only to afford the convenience of an arranged dictionary or catalogue, it would not serve any practical good to establish more divisions.

Vesiculous Inflammations. Under this order, Rayer enumerates four genera, viz. herpes, psora, or scabies, eczema, and miliaria: Willan and Bateman's corresponding order includes seven, which are varicella, vaccinia, herpes, rupia, miliaria, eczema, and aptha.

It will be useful to discuss briefly the propriety, the comparative merits of these two classifications. Three only of Willan's genera are admitted into Rayer's order; we have already seen that he has excluded rupia.

"With regard to varicella," says he, "I admit that, of three or four varieties which this disease offers, designated by the English pathologists as *chicken-pox*, *swine-pox*, *hives*, and *modified small-pox*, one at least, the *chicken-pox*, is really vesiculous; but certainly, the other varieties, particularly *hives*, and *modified small-pox* are constantly pustulous diseases. By this double character, varicella forms a connecting link between vesiculous and pustulous inflammations. At liberty to place it in either of these groups, I prefer classing it among the pustulous, thus connecting it with variola, of which it may, perhaps, be a modification." 68.

These remarks have acquired more credit since Professor Thomson of Edinburgh and others have published their speculations, as to the identity of chicken-pox, with modified small-pox. It seems to us utterly impossible to decide whether we are to view these diseases as more strictly vesiculous or pustulous; the decision will depend altogether upon the period of the eruption at which we draw our description; fortunately it is of no moment in practice. Nearly the same may be said of vaccinia or cowpox.

The genus, aptha, has, it must be confessed, no business among cutaneous diseases, unless indeed we were to admit all other affections of the mucous membranes. The only other disease in Rayer's catalogue which we have not yet alluded to is psora or scabies: and with respect to it we may with perfect propriety say, that medical men may please their fancy where they place it, and whether they call it a vesicular or a pustular disease; for even Bateman acknowledges that "from its affinity with three orders of eruptive appearances, pustules, vesicles, and papulæ, it bids defiance to any attempt to reduce it to an artificial classification." On the whole, however,

it is more correct to call it a vesicular than a pustular eruption; and the description given by Willan and Bateman will assuredly bring their readers to this conclusion; for we are told that even in the scabies papuliformis "the unbroken elevations, when carefully examined, are found to be vesicular and not papular." Such are the differences between the divisions of the order vesiculæ proposed by the English and French nosologists; the three diseases of herpes, miliaria, and eczema, are common to both systems. From what has now been said, it may be deduced as a very fair and rational inference, that it would perhaps be wiser to employ a general term, compounded of the two terms, for the two orders of skin disease, viz. the pustular and the vesicular, and to distinguish them into the pustulo-vesicular and vesiculo-pustular, according to the predominating character of the eruption. The only member of the family which might be refractory, and to which we should be obliged to use a rather compulsory mode of introduction is miliaria; for, strictly speaking, it is vesicular, or at least very nearly so, throughout its course. It may be said likewise that small-pox is genuinely and uniformly pustular; it is so certainly in every case during its progress; but it is very common to observe numerous distinct vesicles interspersed with the papulæ when the eruption first appears.

The only remark which we shall make on the vesiculous diseases of our author respects the description given of the miliaria, (which it is to be remembered includes the sweating sickness of the 16th century, and the epidemics of the "suette miliare," which have occurred of late years in some of the French provinces.) He says that "it is an acute contagious disease, affecting at the same time the gastro-intestinal mucous membrane and the skin," and yet we are informed in the next page, "that several physicians have inoculated themselves with the matter of the vesicles with impunity." The idea of any contagious property is quite chimerical, and has arisen from the disease, at least one form of it, appearing as an epidemic; indeed so far from miliaria being generally contagious, it may be very often induced artificially, especially in plethoric and irritable subjects, by confinement in heated chambers, and the use of hot stimulating diluents; hence it used to be common about sixty years since among puerperal patients; and now it is very rarely met with. The epidemic form is not known in this country; yet it may be interesting to learn its characters from our author, who published an account of it, as it appeared in the department of the Oise, during the year 1821. He says—

"In the epidemic which prevailed in the department of the Oise, 1821, several individuals who retired to bed in perfect health, on awaking found themselves attacked by the disease, and were inundated with sweat, which continued till death or convalescence took place. In some instances, a scarcely sensible febrile action, a burning heat, or a creeping sensation running through the limbs, with almost always a sense of constriction in the epigastrium, preceded for several hours the appearance of the sweat, or rather of a hot vapour, which at first confined to certain parts of the body, afterwards extended over the whole surface. The mouth was clammy, covered with a dirty-white coat, rarely yellowish; there was little or no inclination for food; urine natural. The bowels were constipated during the whole course of the disease, in general. In most cases the pulse was natural, but became frequent when the eruption appeared. Respiration was attended by that kind of embarrassment which takes place when the temperature is too high. The encephalon, the organs of sense, and those of

generation, were not included in these derangements. This state continued, with slight variation, the second, third, and fourth days of the disease. On one of these days, and usually the third, after slight smarting, the eruption appeared, first on the sides of the neck, on the nucha towards the ears, and under the breasts in women, then on the back, inside of the arms, lower part of the abdomen, and inner parts of the legs and thighs.

Miliaria may be general and rapid, partial and slow, circumscribed and ambulant, extensive and spreading, distinct or confluent. The vesicles which characterise it are about the size of a millet-seed, pearly and diaphonous, more distinct when the skin is put upon the stretch and looked at obliquely, and are perceptible to the touch. These vesicles are often interspersed by red inflamed papulæ, which render the skin irritable; lastly, true bullæ may be developed accidentally on different parts of the body.

The duration of the vesicles is two or three days. Then they dry, and are followed by a more or less considerable desquamation. This vesiculous inflammation is attended by an abundant fætid sweat, having a similar odour to that disengaged from rotten straw. It appears at the commencement of the disease, and is continually exhaled, under the form of a dense steam, its whole duration." 96.

He adds—

"It is seen only between the forty-third and fifty-ninth degrees of latitude. Humid and shaded situations favour its developement; but it spreads, like measles and scarlatina, to the most elevated places." 97.

Pustulous Inflammations. It is unnecessary, after what we have stated above, to enlarge upon the general features of this order of cutaneous affections; we shall therefore content ourselves with merely pointing out the leading differences between the arrangements of Willan and Rayer. The one enumerates five pustulous diseases, viz. impetigo, porrigo, ecthyma, variola, and scabies; the other subjoins to the four first, (scabies being considered vesiculous,) varicella, vaccinia, vaccinella, cuperosa, (including the varieties of acne,) sycosis and artificial pustule. The following epitome of the authors reasons of dissent from the arrangement of his predecessors is brief and satisfactory.

"I have already remarked, that in Bateman's classification, psora has been erroneously placed among the pustulous diseases, and I have explained the motives which have led me to place variola with varicella, three varieties of which are indisputably pustulous. Vaccina and vaccinella ought to be placed in the same class, and not with vesiculous diseases. Indeed, pustules differ from vesicles, not only in containing pus or non-serous humour, but by the depth and intensity of the inflammation. This latter point appears the more important, as the serosity of all vesicles becomes turbid and purulent in the stage of desiccation, and the contents of all pustules are at first serous. Lastly, Willan and Bateman were deceived when they supposed that cuperosa and mentagra were announced by tubercles, for these inflammations are primarily *pustulous*." 99.

Vaccinella, or modified cow-pox, has hitherto been scarcely recognised by English writers; and as it is of high importance at the present time, when serious doubts are entertained by so many of the protecting efficacy of vaccination, to arrive at some satisfactory conclusions, it cannot fail to interest our readers to be made acquainted with the sentiments of foreigners. The extract is long, but very valuable.

"I designate under the name of *vaccinella*, a pustulous phlegmasia of the

skin, which the insertion of vaccine virus, of *cow-pox*, or of *grease*, sometimes produces in individuals who have previously had small-pox. It may be also produced by the inoculation of variola and vaccina closely following each other; it is occasionally developed in man by the inoculation of spurious cow-pox. This disease bears the same relation to vaccina that varicella does to variola.

*Vaccinella produced by the inoculation of vaccina in individuals previously variolated.** When those who have been the subjects of small-pox are vaccinated, it usually is not productive of any result, and the punctures soon heal up; but sometimes a *vaccinal eruption* is developed, *modified*, both in its external characters and progress. This cannot be better exhibited than in those cases of varicella which the insertion of variolous virus produces in some vaccinated individuals; or than in those cases in which inoculated or variolated individuals are submitted to the influence of a new inoculation of variolous matter. Whichever of these takes place, the progress of this modified vaccina is as follows:

From the first to the third day the punctures inflame; pustules form, generally resembling those of vaccination. Their edges are flat, unequal, and not distended by the contained humour, which is always of a limpid yellow, and small in quantity. The areola, at times pretty vivid, is rarely so large as in vaccina, and is later in its appearance. During this stage, the patient usually experiences an insupportable itching in the punctures; the axillary glands become enlarged and painful, cephalalgia supervenes, and sometimes irregular accessions of fever. The inflammatory stage is very rapid; there is neither tumour not circumscribed induration, as in vaccina; and if there is tension about the wound, it is irregular and superficial. The crusts, well formed about the seventh or eighth day, do not fall so soon as those of vaccina; they occasionally present the same appearance, with this only difference, that they are not so large, or thick, and leave no cicatrix, but only a kind of spot on the skin.

2°. *Vaccinella produced by the accidental insertion of cow-pox in a subject who had been variolated.* Jenner† reports that he saw in a farm, five persons who had previously had small-pox, contract vaccina, by coming into contact with cows suffering under the disease; but he adds, that it was incomparably more benign than in ordinary cases.

3°. *Vaccinella from the inoculation of grease, in a variolated subject.*‡ At the beginning of the year 1801, Mr. Loy saw an eruption on the hands of a farrier, who had previously had small-pox. This eruption appeared not long after the man had dressed a horse affected with *grease*. It consisted of distinct, round pustules, containing a limpid fluid, resembling the vesicles of a burn, having in their centre a small black spot, and which were surrounded by an areola. In the whole duration of the eruption, no fever was manifested.

4°. *Vaccinella from the inoculation of variola, a short time subsequent to vaccination.*‖ When the variolous and vaccine virus are inserted at the same time, they reciprocally modify the action of each other. The vaccine pustule thus produced is smaller than usual, its progress more tardy; the areola scarcely perceptible, or formed prematurely. On the other hand, the variola is altered, and it appears under the form of hard, glistening pustules.

5°. *Vaccinella produced by spurious cow-pox.*§ 'We frequently see,' says Jenner, 'ulcers and pustules spontaneously developed on the teats of cows; par-

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* *Rapport de la Commission Medico-chirurgicale Institutée à Milan.* Paris, an. x.

† Jenner, *An Enquiry into the Causes and Effects of the Variolæ Vaccinæ.* 4to. London, 1793.

‡ Loy, *Account of Experiments on the Origin of Cow-pox*, 1802.

‖ Willan, *On Vaccine Inoculation*, 4to. Lond. 1806.

§ Jenner,—Tellegen, *Dissertatio de Variolis Vaccinis.* Groningæ, 1801.

ticularly in the spring, when they change their food. These pustules may be transmitted to those persons employed in milking; but they are always of a much more benign character than those of a true *cow-pox*, and do not protect from variola.'

Of all these eruptions, one only has been well studied, viz. that produced by vaccination, in previously variolated individuals. The characters which distinguish vaccina from vaccinella have been already described (§260.) These also differ from the accidental pustules which have been denominated *false vaccina*, or *false variola* (according as they have been produced by pus taken from vaccinated or variolated subjects), by their progress, and umbilicated form.

Other varieties of vaccinella have been rather indicated than described, and their history requires to be duly studied." 129.

No pustular diseases are so difficult to describe, and accurately to discriminate, as the varieties of impetigo and of porrigo, or, as Rayer calls it, tinea. The portion of Willan's work which treats of them is decidedly one of the most faulty, and some of the errors which he has committed in his arrangement cause, unfortunately, a direct and practical mischief. The distinction which he has made between them is founded upon the supposed contagion of the one set, and the non-contagion of the other; had he been able, indeed, satisfactorily to point out the diagnostic characters of each, the distinction would be one of the most useful that could be adopted. Impetigo he defines to be an "eruption of non-contagious psydracia, occurring chiefly on the extremities, and without fever." He enumerates five species—imp. figurata, sparsa, erysipelatodes, scabida, and rodens. Rayer remarks, and we quite agree with him, that "Willan has made too many varieties of impetigo: his *I. scabida* should be joined with *I. figurata; I. erysipelatodes* is nothing but the eczema *impetiginodes* of the same author; lastly, *I. rodens* is really only a variety of cancerous ulcer, the edges being covered by accidental psydraceous pustules." But a much more grave objection seems to be, the omission of the disease long known under the names "crusta lactea," or "milk scall," from the order impetigo, and its insertion in the order porrigo. Bateman has, indeed, pointed out this error, and proposes to call it "impetigo larvalis;" but, with most injudicious devotion to his master's precepts, he has retained it among the species of porrigo; the characters of the eruption, as well as the non-contagion of the disease, ought to have determined him to make the necessary change. Rayer, too, has foolishly followed his predecessors, and has introduced not a little confusion himself into his order "tinea," which corresponds to Willan's "porrigo." Indeed, there is no order of cutaneous affections which stands so much in need of a thorough revisal as this; Willan's arrangement is bad, and Rayer's is not much better—for, not to mention the "porrigo larvallis" of the one, and the "tinea mucosa" of the other (the same disease, be it remembered), which, as we have already said, is decidedly an impetigo, the species P. furfurans, and decalvans, and perhaps, also, the favosa, are of most questionable admissibility; and, to make things worse, the French nosologist applies the specific names used by Willan to different species, as we shall presently shew.

Willan enumerates six species, viz. P. larvalis, furfurans, lupinosa, scutulata, decalvans, and favosa. It is very doubtful whether the P. furfurans is really contagious; and the circumstances under which it usually appears, viz. at the termination of the "P. scutulata," or genuine ringworm, when

the pustulous disease is subdued, but before the skin has returned to its healthy condition, and moreover, the resemblance which it has, after some continuance, to the P. decalvans, should forbid, in our opinion, its insertion in the genus at all. With respect to the latter species, or "decalvans," we cannot do better than extract the following passage from Rayer.

"One of the most remarkable varieties of alopecia (or baldness) is that which Bateman designated under the improper name of porrigo *decalvans*. The scalp of persons affected with it presents one or two circular patches entirely bald in the midst of a luxuriant head of hair. The skin is shining without being red, and is often remarkably white. The area of these circular spots, progressively increases. If several exist close together they unite, and if left to itself the disease may affect the greater part of the scalp. Bateman supposed that small pustules were developed at the root of the hair, but acknowledges never to have seen them. I am, myself, ignorant of the nature of the affection of the pilous follicles in this variety of baldness; I can affirm, however, that there does not exist, on the surface of the scalp, either vesicles, pustules, or any other form of the phlegmasia; the skin is always colourless. The new hair growing on these surfaces is, in general, of a finer texture and lighter colour than the original. It is generally grey in adults. I have observed this affection both in children and adults, but cannot point out its causes of development." 365.

Moreover, there are no established proofs of its contagiousness. We have thus dismissed three of Willan's six species, and are inclined to extend the 'congé' to a fourth, viz. the P. favosa. It is certainly much more closely allied to the "P. larvalis," or "crusta lactea," than to any of the other species enumerated by Willan; this, of itself, will make us rather sceptical of its truly porriginous character; and what may well add to our doubts is, the circumstance of Bateman, in the description which he gives of it, never once alluding to its contagious property; and, again, the analogy which exists between it and some of the pustular cutaneous affections, which we witness in the second stages of syphilis, especially after the injudicious exhibition of mercury, may be adduced as a most staggering argument. The other two remaining species of porrigo we shall leave "intact,' and now proceed to make a few remarks on the division of the genus "tinea," by Rayer.

"I am induced (says he) to admit four species of tinea; *T. favosa*, *T. annularis*, *T. granulata*, and *T. mucosa*. I must premise, however, that I regard these four pustulous inflammations as perfectly distinct from each other, and not as species or varieties of the same disease. Their individual existence rests on characters as marked as those of any other pustulous inflammation of the skin. Of the tinea, some are contagious, others not; this alone destroys all supposition of the identity of the nature of these diseases. Lastly, they can still less be considered varieties of the same affection, from the fact of their being found complicated with one another. I use the generic term of *tinea*, only because it has been so long in use, and not as indicating any identity between diseases which does not really exist." 151.

It is to be regretted that he does not retain the generic term of tinea, after having given such satisfactory reasons for expunging it. The T. mucosa is, as already mentioned, the same disease as Willan's porrigo larvalis. The T. favosa includes Willan's P. favosa and P. lupinosa; the description of it is perplexingly confused, and, if we are not much mistaken, this confusion arises from two very distinct affections being blended together; the defini-

tion given is "a chronic contagious inflammation of the skin, characterized by *very small pustules*, the summits of which soon become converted into yellow, very adherent crusts, depressed into a cup-like shape;" and yet there is repeated mention afterwards of "favous pustules," which, in the usual acceptation of the term, are *not very small pustules*. If, by "T. favosa," we are to understand the disease which, by Cullen and others of the olden times, was called tinea capitis, or scald head, then assuredly it must be very materially altered in its characters. According to their descriptions, the pustular eruption was confined to the hairy scalp, and did not extend "to the shoulders, arms, trunk, and lower extremities," as stated by Rayer, who tells us that he has seen it on these parts, while the scalp remained unaffected. But we put the simple question—is the eruption on the arms and legs really and truly contagious? We think not; and, if our opinion be correct, then it must be confessed that two diseases have been confounded together. The subject is one of great practical importance, and ought to be diligently studied by those who have extensive opportunities of observation.

As to the other two species of Rayer, the "T. annularis" and "T. granulata," they correspond to Willan's simple species, P. scutulata. Our limits prevent us from alluding more particularly to the characters of each; and we regret this the less, as we are ourselves quite bewildered in the meshes of incongruous narratives, and do not feel ourselves warranted to attempt the unravelling of them. Our readers, however, may receive considerable instruction from our review of Mr. Macilwain's treatise on Porrigo, in our Number for last April. Passing over the order of "furunculous inflammations," which have not usually been recognized as strictly cutaneous diseases, we come to that of the—

Papulous Inflammations—the "papulæ" of Willan. Both systems admit three species, viz. strophulus, lichen, and prurigo; but, as Rayer observes, "they might be reduced to two—strophulus appearing to be but a modification of lichen, in new-born infants and those at the breast." The itching, however, is never so considerable in the former as in the latter, although the skin of the child is naturally much more irritable than that of the adult. Our author follows very closely the descriptions given by Willan and Bateman; it is, therefore, unnecessary to dwell upon this order of cutaneous affections.

Before leaving it, we may repeat that it would have been more consistent with the principles of philosophic arrangement to treat of papulous, before pustulous and vesicular eruptions. Rayer ought to have followed his English guides in this particular. The next order is that of—

Tuberculous Inflammations. This order of Willan has been subjected to a most unmerciful pruning, two only of the original genera being retained, viz. lupus and elephantiasis (and only one form of it); and to these two, has been added, "cancer or scirrhus of the skin." The definition indeed of a tubercle is vague, and almost unintelligible; and perhaps we could not find a more satisfactory proof of the extreme difficulty of the classification of living phenomena than by referring to this department of our present inquiries. The genera of "lupus" and "cancer," though indisputably affections of the skin, may for any practical uses, be excluded from a treatise on cutaneous diseases; they are very rarely submitted to the inspection

of a physician, and the most modern surgical works have treated of them at great length: and with respect to the other genus, "elephantiasis of the Greeks," it was our intention to have discussed at some length the characters of this, as well as of the Arabian elephantiasis, or as it is called in the West Indies, the Barbadoes leg, and to have pointed out the difference between these two diseases, and also between them and the Jewish leprosy or leuce, a disease which has been so often confounded with them; for, indeed, on no one question of medical inquiry has there been so much discreditable ignorance displayed, and such astonishing absurdities committed, as in the histories of these affections: we had wished to have swept away some of the rubbish in which the subject has been involved; but for this we cannot find room at present; and, although interesting, it must be confessed that it is one on the whole rather of literary curiosity than of directly practical importance to the medical man. We shall only remark that in our opinion Rayer has not done well to separate the elephantiasis of the Arabs from all other diseases of the skin, and to have made a distinct section for it alone, on the ground of it being "a disease primarily foreign to, but which, at times, produces alterations of the skin." Is it primarily more foreign to the skin than boils and carbuncles are? We think not. The order of "squamous inflammations" follows. Rayer omits icthyosis, "which has," he says—

"But small analogy with squamous diseases. Willan and Bateman have thought proper to place them in the same class. Icthyosis, almost always congenital, or developed in the first few months after birth, is attended neither by sanguineous injection of the skin, morbid heat, itching, nor any other sign of inflammation. In lepra, psoriasis, and pityriasis, the production of the scales is always preceded by redness of the skin, which may be made apparent by removing them from its surface. In confluent and inveterate lichen, developed on the trunk or limbs, the skin may become brownish, and covered by innumerable scales, somewhat similar to those of slight icthyosis; but this state is accompanied by insupportable itching, and preceded by papules. The simultaneous or ulterior developement of similar elevations, upon some adjacent part of the skin already farinous, will dissipate all doubts as to the nature of these obscure cases." 337.

Although correct in the main, these reasons do not appear to us quite sufficient to have warranted the expulsion of icthyosis from the order of the squamæ: the utter absence of inflammatory action, or at least of something approaching to it during the early stages, is problematical; for the history of the disease has not been hitherto examined with sufficient accuracy.

The ninth and tenth orders need not detain us a moment, and we therefore proceed at once to the last or eleventh, in which are included several most incongruous affections; our business shall be, however, only with one set of them, which may be well called multiform (provided we are to adopt as the generic term, syphiloid disease, or syphilitic eruption) as there is scarcely a form of cutaneous disease which it does not assume. It appears sometimes as an exanthema, (roseola syphilitica,) characterised by broad patches of a coppery red colour, scattered over the trunk and limbs; sometimes as a papular, (lichen syphiliticus;) or as a pustular or tuberculo-pustular; and still more frequently as a squamous eruption (lepra syphilitica.) Now all these eruptions have one outward feature in common, a feature too not observed in other diseases, and which therefore serves to enable us very

generally to pronounce on the nature of the case; this feature is the coppery or violaceous red color which pervades and surrounds the cutaneous blotch, of whatever character the blotch may be; in addition to this feature, there is another, which though not so universal is so very commonly present, and so pathognomonic, that when it does occur, our diagnosis is rendered almost infallible: the papules, pustules, tubercles, and scaly spots, (for the remark is not applicable to the venereal exanthema) have all a tendency, when left to themselves, to terminate in ulcers, "the edges of which are irregular and sharp, while the bottom is unequal and of a greyish white colour." These different forms of eruption are not unfrequently seen on the same individual at the same time; or one form may be developed, as another fades away. The most frequent and the least equivocal form is unquestionably the leprous, and as it is of great importance that the disease be speedily recognized, we direct the attention of our readers to the following very accurate description of its appearances.

"The patches are ordinarily dry, flat, circular; from four to six lines in diameter, and of a *coppery red colour*. Each spot is announced by a small hard elevation, red or violaceous, which extends circularly till it reaches its fullest dimensions. These plates or patches, very distinct and separate from each other, are always of a copper tint when arrived at their highest degree of developement. They scarcely exceed the level of the skin; their surfaces are, at first, as soft and smooth as the healthy skin; they afterwards become scaly or furfuraceous, but the copper colour always decides their syphilitic nature. Sometimes the centre is paler than the circumference; at times they are formed in circles or rings, in the centres of which the skin remains perfectly healthy; but still, the peculiar copper tint does not allow of their being confounded with lepra or psoriasis.

Left to themselves, these patches run on to ulceration, after the developement of a small psydraceous pustule. The light scales which cover their surfaces become detached, and are replaced by others of greater thickness: a small crust is then formed, beneath which ulceration takes place, but rarely to any extent, and generally superficial." 268.

The pustular form of syphilitic eruption is not so uniform in its appearances as the leprous. The pustules may be either large or phlyzaceous, small or psydracious, or tuberculoid: the first of these varieties constitutes the "ecthyma syphiliticum," of some authors; and perhaps most of the cases of Willan's "ecthyma cachecticum," are in truth attributable to the action of the venereal, or of the mercurio-venereal poison, on an unhealthy constitution. After continuing for some days, these (the phlyzacious) pustules give issue to a purulent fluid, which concretes under the form of blackish-brown crusts, usually conical and surrounded by a copper-coloured areola; when these crusts fall off, there are observed either brownish spots, or small ulcers, or cicatrices of such ulcers, all presenting more or less the same hue. Not unfrequently numerous papulæ are intermixed with the pustules, and then we have a compound or papulo-pustular eruption. Our author's description of the tuberculoid form is good.

"*Syphiloid tubercles* are ordinarily observed on the alæ of the nose, commissures of the lips, on the forehead, genitals, &c. They are also seen on the limbs. These tubercles vary in size from that of a cassia-seed to that of an olive; they are round or ovoid, scattered or disposed in groups, and at times symmetrically arranged one after the other. Their livid or copper colour, contrasts singularly

with that of the surrounding healthy skin. Their surfaces are at first smooth and shining; but when they have been long neglected, they inflame and *ulcerate*. Among the ulcerations, some are covered by thick adherent crusts, frequently conical. When these become detached, the ulcer sometimes heals at its centre while it is spreading at its circumference; and if the patient is much debilitated, the ulceration acquires considerable dimensions. Tubercles may also terminate in *serpiginious* ulcers, healing on the one side, and spreading on the other. These deep and sinuous ulcers, spirally disposed, resemble ciphers, letters, segments of circles, entire rings, &c. the livid edges of which are sometimes surmounted by tubercles. After their cure, they leave indelible cicatrices on the skin, of a very irregular form." 271.

The syphilitic lichen is characterised by the eruption of papulæ, which soon acquire a coppery color, and which are usually surrounded with areolæ of the same hue. If neglected, these papulæ are apt to ulcerate, and "like other forms of syphilis, this eruption is successive in its development; and on the same subject, and sometimes on the same region, may be observed papules intact and ulcerated, and small circular cicatrices, having irregular edges, while their centres are depressed." Of all the forms of syphilitic eruption, the pustular and tubercular are the most serious, not only as indicating a more vitiated state of the constitution, but also as being much more difficult of cure, and requiring an especial nicety of discrimination in the treatment. As a general remark, they are made worse by severe courses of mercury, and almost inevitably, if there is induced a profuse salivation. The exhibition of small alterative doses, in conjunction with the use of sarsaparilla, a nutritious diet, and with change of air, is the most successful, as well as the safest practice to pursue. But this branch of the subject, although the most immediately and practically interesting, we have not space to discuss; our article having already exceeded the limits which we wished to prescribe to ourselves at starting. A third part at least of the volume remains unreviewed, although containing much curious as well as useful information; the nature of its contents may be gathered by an inspection of the synoptical table which we have given. Some may have thought that we have been too much of mere critical nosologists throughout this article, and may object that, scarcely one remark has been offered with respect to the treatment of any of the maladies which have passed under review. We have a reason for having acted so; and it is this. Rayer's treatise is as a whole, a work of classic excellence; it is valuable especially for the accurate descriptions of symptoms and of appearances, and for the minute attention to the diagnosis of cutaneous diseases; but the therapeutic portion is decidedly much inferior to the descriptive; and high though its general merits be, we should be wrong in withholding our opinion, that in its present form it is not all adapted to supersede Bateman's admirable Compendium. Perhaps with the exception of having pointed out, with greater earnestness, the efficacy of bloodletting in many forms of cutaneous disease, the author has made scarcely one valuable suggestion touching the employment of the most approved remedial means. We must not therefore consult this work alone, in guiding our practice in troublesome and perplexing cases, or we shall be grievously disappointed: Willan and Bateman are much better authorities. The translator might have done much, had he exerted himself to have remedied the defect to which we allude; but unfortunately he has confined himself to the mere school-boy occupation of substituting English

for the French words of the original; there is not a single note of the least value appended to any part of the volume; and even this is perhaps the very smallest blemish of the book; it has been most carelessly (we suppose from the excessive haste on the part of Mr. Dickinson to see his name in print) got up, and it is full of errors, which he may perhaps say, are merely typographical, but which we are not quite willing to admit as such; for not to mention the blunders in transcribing a few German words which occur here and there, what shall our well informed readers say of such classic terms as "febra urticata," "tinea annulare," and a score of such; or of a line like the following, "de febre a caneris flaviatilibus, et fragaria vescæ fructu." Almost every page presents such words as "veriola," "porrigo scutelata," "venerala," "visiculous," "flour of sulphur," and so forth. The formulas for the preparation of certain ointments and lotions are quite unique; for example—

"℞. Protochl. mercury, ʒii.
Sugar, thus, āā ʒss. M. for fumigation."

An ointment for the itch is to be prepared thus:—

"℞. Adip. ʒj.
Sulphur. ʒij.
Potassæ, ʒj. M. ft. ung.
Two frictions, of two ounces each, twice a day."

Pray is the potassa the caustic alkali? We pity the poor patient, if it is; we should think that the fate of Marsyas, when he was flayed by the wrathful god, was not much worse. Then for another specimen. ("Redwash Hospital, St. Louis.")

"℞. Deutochl. mercury, ʒj.
Distilled water, ℈j.
Anchusa, q. s. M. ft. lotio."

A drachm of corrosive sublimate to a scruple of water? A moderately strong wash we suppose. Dr. Paris, in the next edition of his Pharmacologia, will do well to attend to these curiosities of the prescribing art. In the event of a second impression being at any future time called for, Mr. D. will do well to revive studiously and patiently the work which he has undertaken to introduce into English medical literature. Let him not be satisfied with giving a mere bald translation of Rayer's text; he should aspire to a more dignified avocation; and by comparing the sentiments of his author with those of domestic and of other continental writers, by abridging or altogether excluding some of the unnecessary details, and by supplying the deficiencies, (more particularly in reference to the treatment of skin diseases) he will not only do himself an essential good, but confer a practical benefit on the profession at large. As a guide and pattern for him to follow in his labours, we cordially recommend him to take Dr. Forbes, whose translation of Laennec we cannot praise too highly. A copious index is indispensably requisite in such a work as Rayer's.

TRANSLATION FROM THE INAUGURAL DISSERTATION OF *Carlo Francisco Joseph Bellingeri*, E. S. Agatha Derthonensi Philosophiæ et Medicinæ Doctoris, Amplissimi Medicorum Collegii Candidati.

THE physiological world has lately been distracted by a controversy on the nervous system. The discoveries which the world has attributed to Sir C. Bell have been snatched at by more than one envious hand, and the wreath has been torn, though it has not withered on his brow. We had hoped to have laid before our readers, upon this occasion, a careful, a candid, and unflinching examination of the claims of some of those who oppose Sir C. Bell. Circumstances delay the publication of the article till the Number of this Journal for January next. A contemporary has advocated, with much warmth and little temper, the right of Bellingeri to be considered the first who elicited and displayed the true functions of the fifth and seventh pair of nerves. With anxious, hurried, and impartial zeal, he has, almost at the same hour, introduced the candidate and chaired the victor. Yet the issue of the triumph *may* remind us of the humorous plate of Hogarth, in which the conqueror's conspicuous situation attracts to himself more weighty bludgeons and more numerous brickbats.

As Signor Bellingeri's claims are hotly urged, the best mode of arriving at a just appreciation of them, is to lay before the public a translation of the essay on which they have been founded. This we have now, through the kindness of a friend, the opportunity of doing. In our next, we shall discuss their nature and their value.

THE FUNCTIONS OF THE FIFTH AND SEVENTH PAIRS OF NERVES.

CHAPTER I.—ART. I. *The Use, Agreement, and Influx of the Major Portion of the Fifth Pair.*

1. Although, in entering upon a much controverted question, I cannot speak with absolute certainty, I shall have enough to adduce upon the ground of fair conjecture. We have, moreover, seen in the previous dissertation, that the fifth pair is distributed to a variety of parts, with entirely distinct uses. Some of these parts are subservient to sense and voluntary motion, some to involuntary or spontaneous action, others, again, to secretion—all, in fact, perform organic functions. With what actions, however, is the fifth pair engaged? Let us consult authority before we decide.

2. Galen has observed that a nerve of the fifth pair, which he designates by the name of the third conjugation, is assigned to the sense of touch and voluntary motion, and that branches of it are distributed throughout the mouth, and subservient to taste.

Willis remarked that the fifth pair attends upon the senses, as those of touch and taste; he maintained, also, that it performed motions, though involuntary or instructive; that it was influenced and excited by sympathy, and by the passions; he also plainly hinted, that the lachrymal branch of the ophthalmic was devoted to involuntary actions (or organic functions,) was

in a manner subservient to sight and smell, and modified the circulation of the blood in the face.

Vieussens likewise asserted that it was subservient to touch and taste; and that it was also of use in voluntary and involuntary motion, and in the expression of sympathy and passion.

Meckel declared that it expressed the feelings of the mind, and revealed morbid affections in the face; that it directed more of the sympathies of the head, trunk, and limbs; that it presided over the senses of touch and taste, and was even subservient to smell; that it attended upon sight and hearing; and sometimes contracted or dilated the larger bloodvessels and capillaries.

Soëmmering also observed that this pair expressed the sympathies and passions of the mind, and the morbid affections of the viscera. Bichat reckons the nerve of the fifth pair among the nerves of animal life, and transfers the ophthalmic ganglion to the nervous system of organic life. Gall observed that the nerve of the fifth pair is distributed to parts of voluntary motion, and also to parts which are by no means so; that it presides partly over ordinary sensation, as that of touch, partly over special, as that of taste; hence he proposed the term of the mixed pair. Boyer examined the physiology of the fifth pair more fully, for, according to him, it supplies motion to the occipito-frontal and supraciliary muscles, to all the muscles of the face, to the temporal, the pterygoids, the masseter, the muscles of the velum palati, those of the tongue, the mylo-hyoideus, the genio-hyoideus, and to the anterior belly of the digastric; but it supplies sense to the iris, the lachrymal gland, the conjunctiva, the pituitary membrane, the velum and glandular membrane of the palate, the gums, the membrane of the internal mouth, the the teeth, the tongue, the tonsillary, maxillary, and sublingual glands, the integuments of the ears, temples, crown of the head, forehead, and the whole of the face.

3. Very numerous, therefore, and diversified are the functions which, in the opinion of these writers, the fifth pair performs. Reason, however, seems to convince us, that this pair eminently contributes to the organic life of the parts to which it is distributed.

4. And in the first place, in an anatomical point of view, its peculiar structure, so admirably adapted to nerves of organic life, the intertextural arrangement of its filaments, its frequent ganglia, the extraordinary number of its anastomoses, the occasionally increased volume of its branches—as we have observed with Boyer, in the trunk of this nerve, in the ciliaries, in the external nasal; and, with the anatomist Scarpa, in the posterior palatine, which constitutes its resemblance to the intercostal; its constant connexion with the arteries, which Bichat considers a distinct characteristic of the organic life of nerves—all these points are in favour of the opinion proposed. Perhaps an argument may also be drawn from its source; for it appears to rise almost entirely from the corpora olivaria, which are properly considered as ganglia.

5. The arguments derived from physiology are still more important. Being actually distributed to the iris, the lachrymal gland, the widely-expanded pituitary membrane of the nose, the maxillary, sphenoidal, and frontal sinuses, the teeth, the internal parts of the ears, all the salivary, the mucous, and the tonsillary glands, the pharynx, and the periosteum, it cannot but perform the functions of organic life. It is true, indeed, that it has refe-

rence to the muscles which are subservient to the will and the teguments; but I would have it observed that it is not branches of the fifth pair only which exist here, but that others are immediately added; whilst, for instance, it passes out above and beneath the orbit to the temples, and in the malar region, near the foramen menti, are not filaments of the seventh pair immediately supperadded, forming, by a close anatomosis with the branches of the fifth, almost a single nerve? If, then, organic life exists solely where the branches of the fifth pair are exclusively found, as in the lachrymal, nasal, dental, and palatine branches, is it not probable, from its distribution to the muscles and integuments of the forehead, lips, nose, mouth, and entire face, that it attends merely upon (familiari) the organic life of these parts, while their animal life, as voluntary motion and animal sensation, depends on the superadded nerves? Undoubtedly, since the fifth pair supplies the organs of the senses, the organic part depends on this nerve, the animal on those particular nerves which relate to these organs. It is plain that the involuntary motion of the iris, that of the muscles of the internal ear, and the organic life of the pituitary membrane, are regulated by the fifth; yet the sense of smell depends on the first pair, that of sight on the optic, and that of hearing on the acoustic: it seems therefore to follow that both the voluntary motion of the muscles of the face, and the animal sense of touch, depend on the seventh. For, since the branches of the fifth pair exclusively supply the velum palati, with its muscles, and the pharynx, their motion is almost *entirely* removed from the control of the will.

Let us moreover observe, with Gall, that the nerve of the fifth pair is more evolved, in the case of infants newly-born, than any other nerve of the head; and, whereas, in the rest of the animals, a proportion is kept up more than in man, the fifth pair is more remarkable for its thickness. But the life of the fœtus is organic; the life of brutes, also approaches nearer in the face to the organic than that of man. Physiology therefore convinces us that the fifth pair is subservient to organic life.

6. That the fifth pair is principally devoted to organic life is proved, moreover, by actual cases of pathology. It is matter of fact that, in neuralgia, the infra-orbitar branch of the face is divided, and no paralysis of the muscles ensues. The same conclusion is perhaps deducible from the case of the monster described by Lawrence; in which the brain was almost entirely wanting, and the annular protuberance was replaced by a tumor, from which proceeded only the fifth, sixth, eighth, and ninth pair; the subject lived four days, and took food. Yet it would be fairly inferred that the monster lived an organic rather than a really animal life, from the entire absence of the principal organs which attend upon the latter.

7. Meanwhile, whilst we are proving that the fifth pair attends principally upon organic life, it is also plain that animal life must consequently depend on the same pair, for, upon injury of the organic mode of existence in any part, the animal functions are also of necessity interrupted. Upon this principle we explain the following case:—

Mussano Joseph Antonius, 23 years of age, (an agriculturist of Bibia,) of the sanguine temperament, and of a robust habit, was seized, from seeing an epileptic woman several times, with a severe mental affection, producing disturbed, restless, and terrific sleep; some months afterwards he experienced a heavy pain in the right occipital region, which was followed in a few days

by paralysis on the same side of the face. He entered St. John's Hospital a month and half after the commencement of the disease, when we observed the following symptoms. There were distortions of the left side of the mouth; pain above and beneath the orbit about the proper foramina, also at the os malæ, and near the foramen menti on the right side; paralysis of the frontal and supraciliary muscles, the orbicularis palpebrarum, the incisor muscles, the canine, the zygomatic, the triangular, and the quadratus menti, and of the orbicularis labiorum on the right side; meanwhile, the motions of the temporal, masseter, and buccinator muscles, and of the tongue, was unimpaired; the deglutition was also undisturbed; the senses of hearing and sight were uninjured; the motion of the iris was perfect in the same part, as also that of the smell in both nostrils, as we proved by experiment. In the mean time, however, there was a diminished sense of titillation in the right nostril, on taking some pungent snuff; and a slight effusion of tears from the right eye; the same kind of snuff being taken in the left nostril, there was greater irritation, and a copious discharge of tears from the left eye; upon stitulating the nostrils with foreign bodies, sternutation ensued on the left side, but none on the right. The sense of taste was considerably impaired and diminished in the right side of the tongue; that of touch was also much obscured in the integuments of the same side of the face. There was also pain in the right scapula. We learn from this case that motion was withdrawn from those muscles, which are supplied by the portio major of the fifth pair, whilst it remained in those which are supplied by the portio minor; that the organic sense of the pituitary membrane was diminished, that its sympathy with the intercostal and lacrymal (nerves) was diminished and almost obliterated; and that the senses of taste and touch were injured, whilst those of sight, hearing, and smell were unaffected.

7. It is not, however, merely over the organic life of parts that the fifth pair presides, but it also serves to express the involuntary passions and sympathies. The passions of the mind are wonderfully expressed in the face, principally by the branches of the fifth pair. Joy, for instance, is observed in the regular expansion of the frontal muscle, though by a peculiar separation of the muscles of the lips and of the orbicularis oris, by the brightness of the eye, and the natural animated colour of the face, and sometimes, when it is excessive, by a flow of tears. In sorrow, the same branches of nerves are affected, but in an entirely different way; thus the frontal nerves of the fifth, the lacrymal, and the insertions of the infra-orbital in the muscles of the nose and lips express sorrow, and also the branches of the inferior maxillary in the muscles of the chin; the eyes meanwhile droop and are sad, the face is pale and of a dull livid colour.

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37. It follows from what has been hitherto said that, with regard to the senses, a distinction is to be made between those of touch and smell, and between organic and animal taste. These senses, so far as they depend on instinct, are referred to organic life; hence they have been denied to no class of animals, and are perfect almost from the period of birth; for it is by these senses that the animals provide for themselves, and preserve their existence; and these senses also act by their connexion with nerves of organic life only, as appears in worms, and in the monster described by Fauvel and by Mery; but animal touch, smell, and taste are performed by

distinct nerves, which transmit their sensation to the brain. It is moreover agreeable to the economy of Nature, that the natural or organic senses should be discharged also by the nerves of organic life, but that the animal senses should depend on a distinct class of nerves. The fifth pair, therefore, in our case, presides over the natural or organic senses; but the animal senses, which are found in the same organs to which the fifth is distributed, depend on superadded nerves. I shall therefore decide that the fifth pair is a sentient nerve, and motory of organic life in the head. What I have said generally of the fifth pair, is to be understood only of the portio major of it.

ART. II. *The Use of the Portio Minor of the Fifth Pair.*

38. The portio minor of the fifth pair has an entirely different origin, course, and structure from the portio major, and is inserted by its proper shoots into the temporal, masseter, and buccinator muscles, the external and internal pterygoids, the orbicularis labiorum, the elevator anguli oris, and the triangularis menti. Palletta asserted that this portio minor performed voluntary motions, and was affected, in trismus, primarily or by sympathy. Since, however, it is to a certain extent subservient, from its insertions, to the taking of food, to deglutition, and especially to mastication, I doubt whether its functions are confined to voluntary motion. Willis observed some time ago—"The taking of food into the mouth is the first and earliest employment of every animal, and is indeed taught by natural instinct prior to all knowledge of the brain;" whence it is plain, that, since the portio minor is engaged in performing these functions, its motions are not always dependant on the will, but sometimes on instinct, as in the infant, who performs all these motions perfectly as soon as he is born. This portion is therefore influenced sometimes by the will, sometimes independently of the will, and by mere instinct. We undoubtedly move all the muscles, which are supplied by the portio minor, voluntarily and at our pleasure. It is plain, however, that this voluntary motion of the muscles depends solely on the portio minor of the fifth, and not on the seventh, or the facial nerve, which is elsewhere united with its branches, from the fact that the portio minor exclusively supplies branches to the fleshy substance of the temporal muscle, and particularly to the pterygoids, without any branches of the facial, and yet that those muscles are under the control of the will; besides, in paralysis of the seventh pair, as will be seen in a case presently to be given, these muscles were actuated by the will. The portio minor therefore relates to the nerves of animal life, and indeed to the motor nerves; for it in no case presides over the senses, and, if its office be considered, it should be termed the nerve of mastication.

Since, therefore, the portio minor is altogether in itself a nerve of animal life, Nature has assigned its origin distinct from that of the major, and, as it is a motor nerve, it arises from the peduncles of the cerebellum. It is therefore evident with what propriety Palletta observed, from anatomical deduction, and from a survey of their different origin, structure, and course, that the crotaphitic and buccinator nerves are distinct from the fifth pair, for their physiological functions also prove that the portio minor is distinct from the major.

39. Having, however, proved that this portio minor performs distinct voluntary motions, we have still to enquire why, in certain cases, it influences the muscles which it supplies, involuntarily or instinctively. This is also shewn by anatomical proof; we have seen, in the preceding dissertation, that the portio minor of the fifth is for the most part intimately connected, at its emergence from the oval foramen, by the gangliform plexus with the inferior maxillary; and, moreover, that almost all the branches of the portio minor receive roots or filaments from the roots of the inferior maxillary; the portio minor is therefore, in its proper ramifications, a nerve composed of its own filaments, and of those of the inferior maxillary: we need not wonder, then, if it perform, generally, voluntary and sometimes involuntary actions, which, however, it effects not by its proper filaments, but by those which proceed from the inferior maxillary, which I think I have already shewn to preside over organic life, and perform involuntary motions. But, besides these latter motions, which the portio minor sometimes produces, it presides in some parts over organic functions, as is proved by the buccinator branch, which is connected by filaments with the duct of Steno, and the buccal glands.

There are then muscles which perform mixed motions, sometimes voluntary, sometimes involuntary; there are also nerves, though these either consist of filaments of different nerves collected into one fasciculus, or the filaments constituting a single nerve have a different origin in the brain.

CHAPTER II.—*The Physiology of the Seventh Pair, or the Facial Nerve.*

40. The remarks I am about to make upon the use of the seventh pair, obviously arise from what I have already said, perhaps too fully, respecting the fifth. Let us first explain its physiology; and begin by adducing the words of Rhazes: he has well observed—"It is the fifth pair, (hitherto designated by the single name of the seventh,) by the one part of which occurs the sense of hearing, and by the other are moved the muscles which affect the face." Willis asserted that this nerve performed certain motions, especially those of the passions; that it was affected sympathetically by the acoustic, and expressed the sympathies which occur between the acoustic, the external ear, the eyelids, and the organs of voice—the pharynx, the tongue, and the lips: that it presided over the motions more than over the senses; that it was however subservient to the sense of hearing; he observes, "another (the facial) nerve supplies certain requisites, by which that act (hearing) is more completely performed." Winslow called the facial nerve the small sympathetic. Meckel however affirmed that this nerve was affected by grief; and communicated its proper affection to the diaphragm by the cervical (nerves;) that it contracted or relaxed the blood-vessels in affections of the mind; that it performed the sympathy which exists between the lips and the whole of the body in the act of kissing; that it presided over the exquisite sensibility of the lips. Soëmmering said that it expressed laughter in the face, weeping and anger, paleness and redness of the face, and he explained, by means of the facial nerve, the agreement of the teeth with the head, ear, and muscles of the face; and the sympathy of hearing with the eyelids. Gall speaks to the same effect. Bichat reckoned the facial among the nerves of animal life. Boyer said that it imparted motion to the

muscles of the stapes, the malleus, and those of the external ear, to the stylo-hyoideus, to the posterior belly of the digastricus, to almost all the muscles of the face, and to the colli-cutaneus. He said that it also presided over sense in the cutis of the head, in the integuments of the ears, of the temples, of the face, and of the anterior and posterior part of the collum.

41. The anatomical structure of the facial nerve suggests to us, that it presides especially over the animal functions in the head, face, and neck, that is, over the animal sense and voluntary motion. It scarcely any where, indeed, forms ganglia; it presents a similar structure to that of the other nerves of animal life, merely constituting remarkable plexuses and frequent anastomoses; it is almost exclusively inserted in the skin and muscles; it should, therefore, be called the cutaneo-muscular of the head and neck. An argument may also, perhaps, be derived from its origin; we see it, in fact, arising principally from the medullary fasciæ, from the corpora restiforma, and from some filaments proceeding from the corpora olivaria. Since then, it chiefly arises from processes of the cerebrum and cerebellum, we infer that it is subservient to sense and animal motion.

42. Physiology also teaches, that the facial nerve is especially devoted to the animal functions. Since, indeed, it supplies the cutis of the head, the face, and the neck, it is rendered very probable, from what we have said on the fifth, that it expresses animal sense; but that, being distributed to all the muscles of the external head and external ears—to almost all those of the face, excepting the temporal, to the stylo-hyoideus, the posteriori digastricus, and colli-cutaneus, it performs animal motion. It should, therefore, be termed from its office, the sentient and motor animal nerve. Its function in the internus of the ears and the parotid we shall examine hereafter.

43. The following is a case of the pathology of the seventh pair.—A patient was lying at St. John's Hospital, under the care of Professor Geri, having been affected for a long time with an inflammatory tumor behind the right ear, which had extended both above and below the mastoid process, so as to compress the facial nerve, at its point of exit from the stylo-mastoid foramen; such was the decided opinion of the Professor, and of Drs. Gallo and Riberi. Meantime, the patient presented almost entire paralysis of the muscles of the right side of the face, and distortion of the left side of the mouth. There was, in fact, complete paralysis of the frontal muscle, the supraciliary, the orbicularis palpebrarum, the elevator alæ nasi, and labii superioris, the canines zygomaticus, the right side of the orbicularis labiorum, the triangularis and quadratus menti, and colli-cutaneus. The motion of the temporal, masseter, buccinator, and pterygoid muscles, was perfect; of the digastricus we could form no opinion. The motion of the ball of the eye and of the upper eyelid was unimpeded; the vision of the right eye was, however, a little injured; the tongue, also was moved with some difficulty, yet was the taste proved to be unaffected on either side of the tongue; the sense of touch was also uninjured in the face, the hearing was considerably impaired in the right ear, but the abscess had opened in the external ear. The patient died in about two months. An effusion of pus was found in the cavity of the tympanum, contained in the aqueduct of Fallopius, and compressing the facial nerve in its course; there was no pus or trace of inflammation about the stylo-mastoid foramen after death; but marks of recent in-

flammation and suppuration in the right lobe of the cerebellum; the fibres and trunk of the fifth pair were uninjured.

As often as the facial nerve is affected with neuralgia, there almost always occurs a spasmodic and convulsive affection of the muscles of the face and neck, as will appear from the following dissertation.

44. The results, also, of *anatomy* shew much more distinctly the physiological use of the seventh pair. Cuvier observes that the facial nerve is invariably small in birds, from their want of lips, a muscular mouth, and almost a face; since there is no sensation and little mobility, there is consequently a very small nerve. On the other hand, the nerve of the fifth pair is observed to be fully developed in birds. I have myself remarked that, in the rabbit, the branches of the facial nerve are very small, but that the branches of the infra-orbital of the fifth are larger and conspicuous; yet, in such creatures, few animal, though many organic, functions are performed in the face.

45. We now proved, by *experiment* on the rabbit, that the seventh pair is subservient to sense and animal motion. We divided the seventh pair, in its course near the parotid, which was followed by paralysis of the muscles of the eyelids, of the upper and lower lip on the same side. On dividing the seventh pair on both sides, nearly in the same place, there was entire paralysis of the eyelids, and of the upper and lower lip; the rabbit still moved the external ears, drew down the lower jaw, and protruded the tongue; the sense of touch appeared to be considerably affected in the face, for, when its hair was plucked, it gave no signs of sensation.

46. Since, then, the seventh pair is subservient to animal life, it produces animal sense in the face and voluntary motion. Since, moreover, it supplies animal sense in the face, branches of the seventh are distributed from this source, together with branches of the fifth, in every part of the head, face, and neck, throughout the skin; and they exist in greater abundance, or more superficially, where the animal touch is more exquisite; thus the seventh forms frequent anastomoses with the subcutanei malarum of the fifth; the shoots of the facial are conspicuous at the lips, and exists in great numbers all over the skin of the neck, imparting to it an exquisite sense, from which the excitement is most easily perceived in these parts. And we have already observed that it presides over the sense of taste, by the chorda tympani, or its lingual branch.

47. But, in the first place, the seventh pair performs almost all the voluntary motions in the face; it moves the muscles of the forehead, the orbicularis palpebrarum; some muscles of the nose evidently, others obscurely, in man, but all of them manifestly in some species of animals, as in the rabbit; also the muscles of the labia, the buccinator, and masseter; all the muscles of the external ear in most animals, if not in man; the occipital, and, at length, the stylo-hyoideus, the mylo-hyoideus, the posterior belly of the digastricus, and the colli-cutaneus, all of which are under the control of the will. But through its lingual branch, it contributes not merely to the sense of taste, but also to the voluntary motion of the tongue, as is proved by the case already given, in which we observed that the voluntary motion was in some degree impeded.

48. Nor is its function confined to the senses and voluntary motions, but it also performs the animal sympathies. By this term, I understand those

sympathies which depend on animal sensitiveness and contractility, through the interference of the brain, which are performed with consciousness, and may be prevented by reluctance. Now there are many sympathies which occur between the sense of hearing, the external ear, the eye-lids, the tongue, the lips, the larynx, the head, and limbs, through the facial nerve, and its anastomoses with other nerves. Those sympathies, indeed, between the acoustic and facial nerves would be better explained, if the shoot, described by Meckel and Bertinus were a constant one, which enters the interior parts of the ear, and seems to form a part of the acoustic. Moreover, the sympathy between the sense of hearing and the external ear is manifest in the brutes which move their ears voluntarily; for, upon any unusual sound, they erect their ears, and put them, as it were upon the watch. In man, also, the sympathy of hearing with the eyelids is evident, for we open our eyelids at the slightest sound, and prevent their closing; upon the occurrence of any violent or sudden noise, we almost unconsciously close our eyelids, although we are able to keep them open when accustomed to it, or advised to do so. There is sympathy with the internal and external organs of speech, as the larynx, the tongue, the lips; thus, on hearing a loud noise, fearless animals bellow, and utter terrific howls—the timid, on the contrary, retire in silence; while listening to pleasing sounds, even in the very act, we suppress our voice—we even direct the tone of our voice by the sense of hearing. Since, then, such sympathy exists between the voice and the hearing, we see also that the seventh pair forms an anastomosis with the laryngeal of the par vagum. And from such an anastomosis, we understand how the voice also is obedient to the will; for the voice is an action sometimes voluntary, sometimes instinctive; the infant cries as soon as born. How far does the voluntary depend on the branch of the facial nerve—how far from instinct, arising from the laryngeal branch of the pneumo-gastricus? What limit can be set to the agreement of the tongue with the ear? Thus, it is by hearing we learn fitly to apply our words, whilst the deaf person is also dumb: but the sympathy of the ear and tongue is best explained by the chorda tympani, which is principally a branch of the facial, inserted in the lingual. Nor is the sympathy merely between the hearing and the tongue, but also with the lips and muscles of the mouth; these, consequently, act in utterance, in talking, in singing, and we pronounce all the vowels and labials.

There is also a sympathy of the ear with the whole of the head, and the muscles which move the head; hence, when we hear a slight sound, and are listening attentively, we incline the head, and approach towards the sound—from a louder noise we, as it were instinctively, move away and avert the head. Those animal sympathies which are performed by previous sense and subsequent motion, are best explained by the anastomoses of the facial nerve with the accessory of Willis and the cervicals. By the connexion with the cervicals, we also learn, to a certain extent, how it is that the limbs are variously affected by the sense of hearing; hence, upon hearing an unusual noise, both man and animals attempt voluntarily and immediately to escape; or, on perceiving a loud and violent noise, the man is alarmed, panic-struck, and stands still—if a pleasant and agreeable sound, he keeps his limbs at rest. The deaf man also expresses, by the better significancy of gesticulation, what he cannot utter, and supplies the defect of

his tongue with his hands, and the whole of the upper part. The seventh pair having also anastomosed with the cervical, the sympathy of the ear with the lower limbs is in some degree manifest; hence, the soldier's march is directed by sound, and dancers perform their movements. And thus we see the animal sympathy of the limbs and of the whole body with the face; by gentle tickling of the skin, especially at the soles of the feet and in the palm of the hand, laughing is excited. By these unions with the cervical it cherishes its own sympathy and that which it has with the diaphragm, which is consequently moved in various modes of utterance, in talking, and especially in singing.

49. Besides the animal sympathies, it expresses also the feigned passions of the mind, which consist solely in various movements of the muscles of the face, eyes, and head, in the position of the whole body, in changes of voice, and the utterance of speech. Thus it is with anger, love, joy, sorrow, humility, pride, dignity, which we wholly or in part affect, as is frequently done by actors; and it is with this nerve especially that they enact their buffoonery and provoke laughter. For laughter is also produced by this nerve; and, since there is considerable sympathy between the facial and the acoustic, we are induced to laugh principally through hearing—frequently, also, by animal touch, and sometimes necessarily by sight. Laughter, however, is never produced by the senses of smell, taste, and ordinary touch. The mind is always affected in laughter actively or passively; hence, man is almost exclusively gifted with this faculty.

50. Nor are the motions enumerated the only ones produced by the seventh pair, for, since it is subservient to speech and mastication, it consequently actuates the organs both of voice and of deglutition. For, through the stylo-hyoideus branch, and the intervention of the stylo-hyoideus and mylo-hyoideus muscles, it raises the larynx in deglutition and in speech; and, through the digastricus, it depresses the lower jaw in mastication, in singing, and in groaning. Since, moreover, those muscles are also moved involuntarily, as is seen in the deglutition, voice, and yawning of an infant, it follows that filaments, also, of the glosso-pharyngeal are supplied to these muscles, and the glosso-pharyngeal and facial nerves are united together by a remarkable anastomosis, so as to connect whatsoever there is of the voluntary and involuntary in deglutition and speech.

51. We have now, therefore, seen that the seventh pair attends principally on animal actions; if, however, any one should object, that it presides over the involuntary motion in the internal ear, let him refer to our remarks on the fifth pair; let him also observe that it there forms a ganglion, as occurs in the ciliary nerves; since, however, it gives some remarkable branches, also, to the parotid, there will always be a difficulty respecting its subserviency to involuntary motion, and, in some instances, to organic life. Besides, it undoubtedly subserves organic life, since it supplies many filaments to the mastoid cellules, to the membrana tympani, to the longer leg of the malleus, about the foramen jugulare, and to the muscles inserted into the Eustachian tube. But I would observe that the seventh pair is not to be considered as a single nerve, but as consisting of two portions, a major, and a minor discovered by Wrisberg, which has a distinct origin, structure, and a course separate from the portio major. I should, therefore, suspect, that a few of the involuntary actions performed by this seventh pair depend on

this portio minor; which would perhaps be more evident if its distributions were understood. In fact, from knowing the distribution of the portio minor of the fifth, we have shewn that the actions it performs are different from those of the portio major; for the minor is subservient to the will, but not the major. Moreover, we can conclude to a certain extent, from conjecture, that the portio minor of the facial is subservient to organic functions; for its filaments appear to rise partly from the substance of the pons varolii, partly from the corpora olivaria, near the origin of the glosso-pharyngeal; but we have already given our opinion that the nervous filaments which rise from the corpora olivaria subserve organic life. I therefore consider that, as the portio major of the fifth is subservient to organic, while its portio minor is devoted to animal life,—so, contrariwise, the portio major of the seventh attends on the animal, and the portio minor on organic life: which being admitted, I will also grant that the muscles of the internal ear are moved by filaments of the portio minor of the facial nerve. Since then the origin and structure are different, and the office of the portio minor of the fifth and seventh pairs distinct from the portio major of each, I fairly consider that each portion constitutes a distinct pair of nerves.

52. We therefore conclude that the facial nerve performs almost all the voluntary motions in the head, presides over animal sense in the face and neck, produces laughter, expresses the feigned affections of the mind, and accomplishes the animal sympathies; hence we also understand why its branches are connected together, and with neighbouring nerves, by frequent anastomoses, as seen by anatomy. We conclude that it acts in mastication, deglutition, voice, speech, singing, and, like the fifth, constitutes a part of all the organic senses; it supplies branches to the internal and external ears, defends the eyes by the eyelids, enters the inferior nostrils, enriches the tongue with a remarkable branch, furnishes the sense of animal touch on the skin, and is subservient every where in these parts to the functions of animal life.

And here I will stop, having spoken too much at large with reference to my ability, but briefly when we consider the wonderful work of the Creator; for in the latter point of view, there would be no limit to our remarks.

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Nor is the division of the branches of the fifth pair attended by paralysis of the muscles of the face, or by convulsive trismus, as appears from numerous cases, and from the clear and decisive testimony of Thouret. We accordingly observed, in our physiological remarks, that the portio major of the fifth pair was not subservient to voluntary motion; neither is it attended by atrophy of the parts, for the nerves of organic life appear to perform their peculiar functions partly without the influx of the brain, the medulla oblongata, and spinalis. Allowing, however, that the influx of the brain or marrow were necessary, there is still some communication kept up with these parts by the anastomosing filaments of the infra trochlearis nasalis, and the subcutaneous malæ.

30. Should it be made to appear that neuralgia has attacked the seventh pair, the division of the trunk or its branches is, in my opinion, never to be attempted: I say of the trunk, because, as Langenbeck observes, there is danger of injuring the neighbouring carotid; neither the trunk, indeed, nor the branches should be divided, for it would infallibly be followed by paralysis of very many of the muscles of the face, in respect of voluntary motion.

Jackson says that he divided the facial nerve; but in what part, and with what effect, is not stated. Langenbeck asserts that the zygomatic and facial branches of the seventh pair may be safely divided, but without affording any proof of it. I have, however, shewn by experiment on the rabbit, that voluntary motion ceased, and that the sense of touch was evidently injured in the face, on wounding the facial nerve near the parotid; and in the pathological case of the seventh pair, it was followed by paralysis of the muscles of the forehead, of the lips, and of the mouth. For the seventh pair being a nerve of animal life, its direct communication with the brain is as indispensable for the performance of its proper functions, as in cases of the rest.

I would it were in our power to remove this malady more frequently and more effectually, by careful examination of the affection, and by rigorous investigation of the means we have enumerated.

WORKS ON PATHOLOGICAL ANATOMY.

I. PRINCIPLES AND ILLUSTRATIONS OF MORBID ANATOMY, &c. &c. By *J. Hope*, M. D., F. R. S., Physician to the St. Mary-le-bone Infirmary, &c. Part XII. July, 1834.

II. ILLUSTRATIONS OF THE ELEMENTARY FORMS OF DISEASE. By *Robert Carswell*, M. D. Professor of Pathological Anatomy in the University of London, &c. &c. Fasciculus Sixth. Hæmorrhage.

THE works before us are approaching their completion; the first, indeed, has reached it. The twelfth and last fasciculus of Dr. Hope's Illustrations of Morbid Anatomy, renders the whole a consistent treatise, displaying the lesions of the various organs, and presenting in a cheap and a portable form that kind and that amount of knowledge which is now indispensable for the surgeon and physician.

It would be idle to dwell on the benefits that have accrued, and must yet result from the due cultivation of that science which dissects disease—which unravels its processes and explains its history—which tells us what to dread and what to combat, when to act and when to stop—and which confers on medicine all that it can have of exactness and of certainty. We have said more than once upon former occasions, that *we* do not anticipate ultimate evil from the general study of morbid anatomy. In lieu of entertaining the opinion that that study has already gone too far, we are confident that it has not gone far enough. A little knowledge in science is a dangerous thing, because it leads to theory—a great deal lays the airy phantom that was raised, because it is productive of exactness. Look at the condition of medicine formerly, and regard it now. A century ago it was a thing of nostrums and tradition—aphorisms and precepts founded on empirical observation debased the mind and directed the hand of the practitioner of physic—and on more than one occasion, the progress of truth has been opposed by the buckler of ancient dogmatism and of consecrated error.* Now re-

* The introduction of lithotomy was long delayed, and its value when adopt-

medies are directed against actual conditions—their actions on peculiar textures and on morbid processes are tested by experiment, and rated by experience—and the surgeon or physician wields against an enemy he knows, weapons which he understands. But we need not pursue the apology or the praise of morbid anatomy. It is enough for us, and for the practical portion of the argument, that the cultivation of it *must* proceed, and that those who aspire to possess even the current information of the day, must, willing or unwilling, be familiar with its facts.

The progress that has been made in this department is most gratifying. The work of Dr. Baillie was deemed a splendid effort, and no doubt at the time when it appeared it was so. Yet compare his brief notice of morbid alterations with the careful, laborious, and accurate investigations of the best pathologists of the present day. The advance has indeed been a giant's stride.

We hail the publication and diffusion of the works of Dr. Hope and Dr. Carswell, with feelings of deep satisfaction. They will carry the spirit of observation and research, and convey the results of labour and of thought to the surgeon of the distant and the quiet village, as well as to the busy hospital-physician. The former sees, with the assistance of lithography, diseases which had otherwise never met his eye; and the latter is stimulated to fresh enquiry and to some minute investigation, in order to confirm or to confute opinions. But we cannot permit ourselves to indulge any further in a strain of general remark, and we proceed at once to discuss the provender which fills our manger.

1. Dr. Hope's fasciculus is devoted to diseases of the brain and spinal chord. He remarks, with justice, that much as has been done in investigating the morbid anatomy of these organs, our knowledge is yet very far from satisfactory; symptoms occurring without definite corresponding lesions, and varieties of change of structure being unattended with similar varieties of symptoms. Dr. Hope has not depicted all the morbid alterations that are actually presented, for some, as induration and slight degrees of softening are incapable of just delineation. For reasons which we need not particularly notice, he confines himself to the description and the representation of the more important genera of disease, and treats in successive order of inflammation of the membranes and substance of the brain—softening of the latter—suppuration, abscess, and ulcer—induration—apoplexy—hypertrophy, atrophy, and anæmia of the brain and spinal chord—tubercle, scirrhous, encephaloid, fatty, fibrous, cartilaginous, and osseous productions, and hydatids. We must exercise our judgment in disposing of these various subjects. Dr. Hope's abridgement must be further abridged.

INFLAMMATION OF THE MEMBRANES AND SUBSTANCE OF THE BRAIN.

Meningitis is the term which is applied to inflammation of the membranes in general: arachnitis is appropriated to that of the arachnoid: and sub-arachnoid meningitis implies inflammation of the sub-arachnoid cellular tissue and the pia mater.

"The dura mater is less frequently inflamed than the other membranes, and its external or fibrous, less frequently than its arachnoid layer. Its fibrous layer, in fact, is seldom inflamed, except from external injuries. In several cases of fracture of the skull, and in some of injury of the scalp alone, I have found pus,

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ed, was at first debased, by the servile submission to the Hippocratic dogma, that membranous parts should not be cut.

either liquid or of pasty consistence, between the bone and the dura mater, and adhering to both. The bone was usually discoloured, and presented a zone of redness around the purulent deposition; the dura mater exhibited a corresponding zone, and its arachnoid surface was vascular, had lost its polish, and appeared thickened. In such cases the disease is rarely more than a few inches in extent, corresponding with the external injury." 278.

We think that inflammation of the external surface of the dura mater is more frequent, and sometimes more extensive, after injuries of the head than Dr. Hope would appear to suppose. Most of us remember the numerous cases of suppuration on the dura mater detailed by Mr. Pott; and many have been surprised at his remarkable examples of success from the operation of trephining. Since the days of that able and eloquent surgeon, a better system of management and treatment have materially diminished the number of instances of suppuration on the dura mater. Yet still it is not an unfrequent consequence of scalp-wounds and of fractures of the cranium. We have seen such suppuration occupy the greater part of the surface of a hemisphere, and extend to near the basis of the skull. There is a circumstance connected with this kind of suppuration, which would seem to have escaped the notice of our author, but to which Sir B. Brodie has directed particular attention. It is this:—When suppuration has occurred *on* the dura mater, inflammation and suppuration generally occur, as a consequence, *under* it. Thus, a person receives a scalp-wound—suppuration ensues upon the bone, and follows, in succession, between it and the dura mater, and between the latter and the arachnoid covering the pia mater, or even beneath the arachnoid itself. A knowledge of this fact is essential to the surgeon.

Inflammation of the arachnoid layer of the dura mater is very uncommon. It is usually partial, but sometimes it is general, and the base is then the part last affected. The ramiform vascularity of its commencement may advance to uniform redness, and to effusion of serum, of lymph, or of pus.

In inflammation of the arachnoid, little or no vascularity is usually noticed after death, but sometimes its vessels are finely injected. The most constant change is, a degree of milky or opalescent opacity, attended, after a time, with slight thickening and increased consistence and tenacity, so that the membrane readily admits of being peeled off from the pia mater. The vertex and the base are the parts at which these changes are most common, the whole of the membrane being rarely affected. When the arachnoid is inflamed the cellular tissue beneath it almost always participates in the affection. Serous effusion into the cavity of the arachnoid, and into the sub-arachnoid cellular membrane, and inflammatory injection of the pia mater, present no peculiarities that need detain us.

A frequent appearance is partial or general thickening of the arachnoid, and a milky cloudiness on the surface of the brain, partly occasioned by the thickening of the membrane, partly dependent on effusion of serum, or even of gelatinous lymph beneath it. Few bodies of persons advanced in life fail to exhibit more or less of these appearances. They are such as may, and frequently must arise from chronic inflammatory action. Yet we see them under circumstances so varied and so opposite, where cerebral symptoms have been present, and have not existed, that they seem to resemble the alterations in the coats of the arteries, and other changes incidental to old age, the inflammatory origin of which is problematical.

Obliteration of the sinuses of the dura mater is occasionally witnessed. It is supposed to arise from inflammation of those vessels. They are found choked up (and the great longitudinal sinus displays the fact in an eminent degree) with coagulum of blood, which strongly adheres to their parietes. In the centre of the coagulum is a semi-concrete puriform matter. Wherever the coagulum appears most recent, this central softening does not exist.

We have noticed this appearance on several occasions, and, however disposed

to respect the authority which attributes its origin to inflammation, we doubt if that opinion is in all cases correct. Certainly we have observed this alteration in cases where no symptoms of phlebitis, nor even of material cerebral disturbance, were presented. It has seemed to us to occur in individuals who were long in dying, and we think that it resembles the polypi, with central softening, in the heart, which have also been remarked in cases where the final struggle was protracted.

However this may be, the consequences of obliteration of the sinuses of the dura mater are, not only stagnation of the blood in the cerebral veins, but exhalation of serum, and even of blood, into the cavity of the arachnoid, extensive ecchymoses in various parts, extravasations of blood in the sub-arachnoid cellular tissue, with softening of the cerebral tissue of the convolutions; rupture of vessels in the substance of the brain, and apoplectic coagula in the midst of the hemispheres. All these different effects result, without doubt, from differences in the seat and extent of the venous obstruction, and still more, perhaps, from the rapidity with which the sinuses are obliterated.

In describing inflammation of the substance of the brain, Dr. Hope successively passes in review its natural appearance—congestion—and genuine inflammation. To the former we need not allude, as words convey imperfectly a knowledge of those natural and standard features, which frequent opportunities of dissection can alone render familiar. Yet we may observe, that the vascularity of infancy and early youth confers upon the brain a pinkish hue, while the weakened circulation of old age is productive of a yellowish tint. But the diagnosis of congestion and of inflammation is important, and induces us to notice the statements of our author. And, first of cerebral congestion.

This is augmented by diseases attended with obstruction to the return of the blood from the head, such as asthma—asphyxia—convulsions, &c. Hypertrophy of the left ventricle of the heart occasions it, by producing a preternatural determination to the brain. If the head is placed in a dependent position after death, gravitation of the blood may occasion very considerable injection, and even uniform redness; and the latter may occur, if dissection is delayed till putrefaction has commenced. Cerebral congestion is diminished by opening the chest before the head, the blood then draining off by the jugular veins. Exposure of the stripped surface or sections of the brain to the air is well known to augment its redness, by the influence of the atmosphere upon the blood. We subjoin Dr. Hope's description of congestion.

"The veins on the surface are preternaturally turgid, and their minute ramifications become unusually distinct. The interior exhibits an exaggerated degree of the natural red dotting, especially in the grey substance of the convolutions, the colour not being so bright a red as that from inflammation. In cases of great and old congestion, it is not uncommon for the vessels of the medullary substance to be so charged with dark blood as to impart a uniform dingy grey tinge to this substance. Dr. Bright has shewn that the vessels on which this colour depends are easily perceptible with a lens. In some instances, more especially those in which the circulation has been greatly retarded, the brain is marbled with a purple cloudiness, occasioned, perhaps, by a faint transudation through the gorged vessels. When the obstruction to the return of the blood from the brain has been extreme, as from obliteration of the sinuses by coagula, rupture of the minute vessels of the cerebral substance sometimes occurs and forms numerous petechial extravasations, which, when very close to each other, break down the texture of the part. They are most abundant in and near the grey substance of the convolutions. Similar extravasations are also very common in the vicinity of apoplectic effusions; being sometimes the result of violence done to the surrounding parts by the clot, and sometimes a product of the original tendency which led to the apoplectic effusion. Concussion of the brain often causes the same ecchymoses by laceration of the minute vessels.

Congestive redness may not only be dotted but uniform. This variety of redness, indeed, is most commonly a result of congestion, and is much less frequently the anatomical sign of inflammation than speckled redness. (Andral.) Uniform redness may vary in depth, from a light rose-colour to a deep mahogany hue. It is never general, being found only in patches in different parts. It occurs in either of the two substances, but principally in the grey, both of the convolutions and of the *corpora striata* and *thalami optici*. In the white substance, where it is rare, it is usually found in the vicinity of apoplectic effusions, though it may occur independent of hæmorrhage." 285.

In the brain, as in other organs, the blood, whether extravasated or contained within its vessels, may, from various causes, pass through various tints.

The foregoing characters of congestion may now be contrasted with those of inflammation. No risk of mistake exists on the part of the experienced anatomist. But all our readers have not great opportunities of pathological investigation, and, therefore, we dwell the more strongly on the subject. Serious errors have undoubtedly ensued, from an imperfect acquaintance with the respective morbid states.

"In inflammation (proceeds Dr. Hope,) the substance of the brain, when sliced, presents a preternatural degree of scarlet dotting, which has been compared by M. Lallemand to a white surface sprinkled over with red sand ('*injection sablée*.) The dots are occasioned by blood circulating in the naturally colourless capillaries, from the larger of which it may be seen oozing for some seconds after the incision has been made. In young children, the injection is occasionally so great as to give a uniform pink tinge to the whole brain. Intermixed with the dots, are small red stains, probably occasioned by rupture of the capillaries and infiltration of blood into the surrounding pulp. These stains are various in number, size, form, and depth of colour: sometimes they give a marbled aspect to the part; and sometimes, by coalition, they form patches of red, the depth of which decreases from the centre, towards the circumference of the patch. These marks of inflammation may exist either in scattered parts of the brain, or may affect a considerable portion of a hemisphere. The vascular turgescence imparts an increased degree of firmness to the part inflamed; but, at the same time, it is more lacerable than natural. The diagnosis of inflammatory from congestive redness will be facilitated by retaining in recollection that the former, when recent, is of a more brilliant or scarlet hue; that it is usually accompanied with anatomical vestiges of inflammation of the membranes, and with the symptoms of cerebral inflammation. When cerebritis is extensive, it may prove fatal without advancing beyond the degree now described, especially if accompanied by meningitis; when limited, it commonly passes into the second degree, or that of softening." 286.

Inflammation of the cerebrum is usually attended with an effusion into the ventricles of serous, or more rarely, of sero-purulent fluid, the quantity of which is never great when the inflammation is acute; in chronic inflammation it may be enormous. Cerebritis is most frequent in children.

SOFTENING OF THE BRAIN.

On this we will not enter, as the lesion was described in the last fasciculus of Dr. Carswell, and has been already noticed in this Journal.*

SUPPURATION, ABSCESS, AND ULCER OF THE BRAIN.

On suppuration and abscess Dr. Hope says little. All that we need notice is the passage which refers to simple ulceration of the brain, an alteration which we have heard a most experienced surgeon deny having ever observed. This

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* *See* the review of the fourth fasciculus of Dr. Carswell's Illustrations of the Elementary Forms of Disease. No. 41, for July, 1834—pp. 46-8.—EDS.

form of ulceration, says Dr. Hope, is rare. It affects the surface of the convolutions, and of the *thalami optici* and *corpora striata*, the nervous substance of which is superficially eroded, so as to form ulcers of various sizes and forms, mostly with uneven, ragged edges and a yellow albuminous surface, but sometimes hard and dry. The surrounding cerebral substance may be either healthy or injected. Occasionally, the ulcer communicates with deep-seated abscesses. Sometimes it originates in the arachnoid and pia mater. This species of ulcer is mentioned by various writers, as Morgagni, Scoutetten, and in the *Archives de Médecine*.

INDURATION OF THE BRAIN.

Three degrees of this alteration have been described. The first is of the consistence of the brain that has been immersed for some time in diluted nitric acid—the second equals the firmness of wax—and in the third, the brain is as firm and elastic as fibro-cartilage.

Induration may be either general or partial. When general, it has never been observed to exceed the first degree. The medullary substance may contain little or no blood, and is of a remarkable whiteness: it is firmer than the grey, especially in the central parts of the brain and at the origin of the nerves. General induration has been observed principally after ataxic fever, and after convulsions from the poison of lead. It appears to be usually an acute affection. Induration may affect the whole length of the spinal cord, being here also principally confined to the white substance.

Partial is more common than general induration, and is usually a result of chronic inflammation. In many cases, however, the existence of inflammatory action is only a matter of dubious inference. Partial induration may exhibit various tints of red or yellow; or it may possess the colour as well as the density of gristle. The disease has been observed in different parts of the nervous centres, and it sometimes affects the grey substance of the convolutions exclusively. After subsisting for a considerable time, it occasionally terminates in suppuration.

APOPLEXY.

So much has been written and said upon this disease, that our memoranda will be very brief. One or two insulated observations will complete them.

Apoplectic extravasations of blood are much more rare on the surface and within the ventricles, than in the substance of the brain. Andral mentions that, of 392 cases of cerebral hæmorrhage which he has found described by authors, the seat of it was in some part of the substance of the brain in so many as 386; in 202 of which it occurred in the part of the cerebral hemispheres on a level with the *corpora striata* and *thalami optici*, as well as in those parts themselves. Our limited observation would induce us to believe that extravasation of blood into the ventricles of the brain is more frequent in comparison with extravasation in its substance, than the ratio of 1 to 65.* Yet M. Andral's authority and calculations are equally entitled to respect.

Dr. Hope describes from successive preparations the series of changes displayed by apoplectic extravasations from the first effusion, to their final absorption and the formation of a cicatrix. Moderate apoplectic extravasations are curable, but one is usually followed by others, for, unfortunately the original cause remains. Several months appear necessary for the completion of a cicatrix.

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* Yet probably we are incorrect; for M. Andral limits his instances of effusion into the cavity of the ventricles, to such as are unaccompanied by any laceration of the substance of the cerebrum. The extravasation must, in fact, be furnished by the vessels of the ventricle.—*Eds.*

Dr. Hope properly and forcibly draws attention to the connexion between sanguineous apoplexy and organic disease of the heart. It is indeed a connexion with which, on all accounts, the practical surgeon or physican should be well acquainted. Did we trust our own experience and our own observation, we should say that this form of apoplexy seldom happens unless the arterial system be diseased, and that the latter is rarely so unless there be hypertrophy of the left side of the heart. These are exceptions, it is true, to this general rule, but as a rule it is usually correct, and a wide expression of this description is of immense importance to the practical man. Indeed, we should say that, in practice, the great value of morbid anatomy is the generalizations which it permits the scientific practitioner to make, generalizations which assist him in individual cases in the hour of need.

HYPERTROPHY, ATROPHY, AND ANÆMIA OF THE BRAIN AND SPINAL CORD.

On these alterations our author is brief, and we shall be silent.

TUBERCLES, SCIRRHOUS, ENCEPHALOID, FATTY, FIBROUS, CARTILAGINOUS, AND OSSEOUS PRODUCTIONS, AND HYDATIDS.

Tubercle and fatty alteration are all that need detain us. The latter is so easily dispatched, that we may begin with its consideration.

A large mass, like adipocire, was found by Dr. Leprestre; and one as large as a hen's egg, and resembling spermaceti, was met with by M. Dalmas. The latter consisted of a large quantity of fatty matter, and another matter seeming to be cholesterine.

Tubercles of the brain and spinal marrow are principally found in children, being rare in infants, and still more so in adults. They are few in number, and sometimes there is only one. Their colour is commonly a pale greenish-yellow, but, when the centre softens, it becomes of an ochre-yellow. Their consistence is somewhat less than that of pulmonary tubercles; and, like the latter, they sometimes acquire a cretaceous composition, in colour and consistence resembling dryish putty. Their most common size is about that of peas, but they may be as small as millet-seeds, or may even exceed the size of hen's eggs; when grouped, they may form still more considerable masses. They would seem to be most commonly generated in the pia mater; and when they arise in the cerebral substance, it is usually in or near the grey matter. The parts where they are found, next in order of frequency to the hemispheres, are, successively, the cerebellum, the pons varolii, the medulla oblongata, various parts of the spinal cord, (especially about the cervical region,) the crura cerebri, the crura cerebelli, the thalami optici, the corpora striata, and the pituitary gland. Tubercles are often surrounded by a cyst, which is generally fine, but sometimes thick, and even fibrous, cartilaginous, or osseous.

Here we close our notice of this Fasciculus, and, with it, of the work of which it forms a portion. The whole does no discredit to its author, a gentleman now honourably distinguished by his talents, assiduity, and zeal. We wish him the success which he deserves and will obtain. For the work itself we will only say that its form, its value, and its cheapness conspire to render it an acquisition to all who would keep pace with the pathological knowledge of the day. The country-surgeon or physican would find himself repaid in its purchase and its study.

II. We now turn to the sixth Fasciculus of the work of Dr. Carswell. It is dedicated to the description and the delineation of hæmorrhage in the various textures in which its occurs.

Hæmorrhage, in the proper acceptation of the term, implies the escape of blood from its vessels into the substance or on the surface of the organs, whether it be retained in these situations, or conveyed to the exterior of the body. It may take place from any portion of the vascular system, in consequence of a solu-

tion of continuity by wound, ulceration, &c.; or it may proceed from the capillary vessels without any obvious lesion. Hæmorrhage may result, too, from morbid alterations of structure or from morbid growths, but in them it must occur in one of the two above-mentioned modes.

Various circumstances operate in producing or in giving a tendency to hæmorrhage. Diseases of the heart and of the vascular system are, perhaps, the most efficient of such causes. The alterations of the heart consist principally of hypertrophy, with or without dilatation, and "of the non-occlusion of the auriculo-ventricular orifices, especially on the left side of the organ, in consequence of permanent retraction of their valves." The result of these morbid states, opposing as they do the return of the venous blood, is venous congestion, which increasing more in some organs than in others, terminates in rupture of the capillary vessels, or in exhalation of blood from their interior. Dr. Carswell has not noticed a frequent cause of extravasation of blood into the lungs:—we allude to contraction of the left auriculo-ventricular aperture. We published several cases of this nature in a previous number of this journal. The rationale of such hæmorrhage is too obvious to require comment. We do not perceive, so clearly as Dr. Carswell, the necessity for congestion in the venous system in cases of hypertrophy of the left side of the heart. Extravasation of blood into the brain is a frequent effect of that disease, but it appears more natural to attribute the rupture of the cerebral vessels to the great and unnatural impulse of the ventricle, than to suppose that this, which is morbidly strong, should be unequal to propel the blood through the veins.

The condition of the blood-vessels is extremely operative in the production of hæmorrhage. The deposition of calcareous and ossific matter in the coats of the arteries—softening of those coats—and loss of elasticity of their lining membrane, are morbid alterations which are known to attend and to occasion apoplexy, aneurism, and various extravasations. It is worthy of remark, that the small vessels of the brain are very liable to rupture, and are seldom aneurismal, while the converse is the case with the larger arteries of the body. The absence of a cellular sheath to the former vessels appears to furnish the explanation of the fact.

Local congestion in the dependent parts of the bodies of those advanced in age or debilitated by disease—and in the substance of various organs, unattended by any lesion excepting extreme fluidity of the blood, are circumstances that precede or accompany hæmorrhage. Vicarious congestions are also not unfrequent, and give rise to vicarious hæmorrhages. Such congestions are boldly attributed by Dr. Carswell to a modification of a function of the capillaries, an explanation which, when analysed, is little more than a learned periphrasis for our ignorance upon the subject.

Prior to describing the physical character of hæmorrhage in the organs in which it most frequently occurs, Dr. Carswell presents a general view of its locality, its local consequences, and the more important changes which occur in the effused fluid. On these heads our notice will be brief.

The locality of hæmorrhage is extremely varied. Several of its forms are only observed in particular organs; others are not restricted in this manner, although they are more frequent in some organs than in others. Age is well known to exert an important influence. Hæmorrhage from the nose is most frequent in childhood—from the air-cells and bronchi in youth—from the digestive, uterine, and urinary organs in middle age and the decline of life—in old age from the brain.

Mucous membrane is more liable to hæmorrhage than any other elementary tissue.

The observations on the *seat* of hæmorrhage are deserving of attention. Yet the principal interest is connected with the situation of apoplectic extravasations, and our notice of the last Fasciculus of Dr. Hope precludes the necessity of our reverting to the subject. The *quantity* of blood effused is various, and arte-

ries usually furnish more than veins. In a case in which death ensued in ten minutes from an ulcerated varyx, Dr. Carswell found the walls of the vein so thickened, and so firmly united with indurated cellular tissue, that considerable pressure was necessary to approximate their internal surface. It was impossible for contraction of the aperture to occur.

The local effects of hæmorrhage are compression, laceration, obstruction of natural passages, inflammation, suppuration, and mortification.

On the consequences of compression we shall say no more than is sufficiently expressed in a general law laid down by Dr. Carswell:—that the disturbance of the functions of an organ from pressure is in the direct ratio of the rapidity with which the compressing cause operates. On the other local effects of hæmorrhage it is not necessary to dwell.

The changes which take place in the effused blood occupy at some length the attention of Dr. Carswell. We cannot follow him, and perhaps it will be sufficient to observe, that effused blood is either removed, or remains and becomes organized—that the removal by absorption is effected with more readiness in some tissues than in others—and that its organization is marked by the successive phases of coagulation, vascularization of the fibrine, and gradual absorption of the latter, giving rise to the appearance of a cicatrix. Sometimes, instead of a cicatrix of this description, the organised fibrous substance is converted into a loose cellular tissue, filled with a serous fluid, and generally traversed by a considerable number of blood-vessels. As the quantity of the serous fluid increases that of the cellular tissue and the vascularity diminish, and thus a considerable cavity is formed, filled with yellow serum, and bounded by the remaining cellular tissue, which at length is changed into a cyst. The obliteration of this is the next circumstance remarked. It is accomplished by the gradual removal of the fluid, and the approximation of its walls, which become united, and form a cicatrix. In some few cases the latter has been found to disappear, the only morbid appearance remaining being a change in the bulk and direction of the grey and white fibrous structure of one of the thalami or corpora striata, in which we must suppose the extravasation to have originally been.

The physical characters of hæmorrhage are next described by Dr. Carswell. He delineates them successively in the brain, the lungs, the digestive, urinary, and generative organs, and finally, in the skin and the cellular texture. The physical characters of effused blood are almost obvious, and certainly simple. We shall scarcely touch upon them.

Of hæmorrhage in the brain we need say no more.

In the lungs, hæmorrhage presents three varieties:—in the first, the blood is contained within the vesicular structure of the lung, and forms a round, circumscribed, solid mass, varying from half an inch to two inches in diameter; in the second, the blood is effused into the cellular tissue, in which it spreads extensively and rapidly, forming a ragged excavation, occupied with blood and portions of engorged and torn cellular tissue; the third variety is a consequence of the second, and consists of the super-addition of rupture of the pleura.

Of hæmorrhage from the digestive organs we will only say, that its black colour is due to the action of an acid on the blood. Follicular ulceration is the most frequent lesion attendant on gastric and intestinal hæmorrhage.

Hæmorrhage from the urinary organs seldom attains considerable magnitude, unless there be malignant disease of the bladder. The medullary fungus is the usual form.

Hæmorrhage from the uterus may be occasioned by congestion of its mucous membrane—by ulceration of the os tincæ or vagina—by carcinoma in either situation—by polypi within the cavity of the uterus. The ovaries are sometimes the seat of hæmorrhage which distends their capsule.

Hæmorrhage of the skin and cellular tissue constitute petechiæ, purpura, and scurvy. On these affections Dr. Carswell offers nothing new.

Of the plates of this fasciculus we can only make one remark—they are beautiful.

Periscope;

OR,

CIRCUMSPECTIVE REVIEW.

"Ore trahit quodcunque potest, atque addit acervo."

I.

SPIRIT OF THE ENGLISH PERIODICALS, AND NOTICES OF ENGLISH MEDICAL LITERATURE.

INFLUENCE OF BODILY POSITION ON THE PULSE. By T. R. BLACKLEY, A.B.

[Dublin Journal, July, 1834.]

This subject was ably investigated by Dr. Graves, in the fifth vol. of the Dublin Hospital Reports, and is noticed by us in the 15th vol. of this Journal, p. 152 *et seq.* Dr. Graves acknowledged his inability to explain the reason why position of the body influenced the number of pulsations of the heart, and this acknowledgement stimulated our author to unriddle the mystery. The following extract is necessary, to shew the basis on which Mr. B. rests his conclusions.

"I believe it will be readily conceded, that the action of the heart in a strong and healthy individual, while in a state of rest, is uniform and equal, that it is possessed of a power sufficient to expel a certain quantity of blood at each contraction of the left ventricle, which power is necessary to overcome the obstacles presented to the egress of the blood.

Let us suppose, for instance, that the heart of a healthy man in the erect posture beats sixty times a minute, and at each beat expels one ounce of blood, sixty ounces per minute will be of course expelled; but if the *power* of the heart be increased or diminished, we must expect a corresponding alteration in the number of beats. Thus, if the power be *increased* one-tenth, it will require but fifty-four beats to expel sixty ounces in a minute; but if it be diminished one-tenth, it will require sixty-six beats.

To this variation of power in the heart are the phenomena of which we speak attributable, or rather, I should say, *the variation of resistance to the heart*, which comes to the same thing. A question may here be asked, namely, 'can you prove that the heart discharges a greater quantity of blood at one time than another, or that the left ventricle does not at each contraction expel the entire of its contents?"

I am fully aware that the general opinion is opposed to mine; indeed, actual experiment would seem to be against me, for it has been affirmed, that on inserting the finger into the left ventricle of a recent heart, it contracts through its *whole extent*; nevertheless, I think I can prove the reverse, from the anatomy and mechanical construction of the heart itself.

1st. There are no muscular fibres going from the substance of the left ventricle to be inserted into the opposite edges of the valves, or above them into the aorta; therefore the space immediately inferior to the valves cannot be compressed.

2dly. We never find the left ventricle perfectly closed after death, even though it should be at the time that rigidity of the muscular fibre prevails.

3dly. If the valves had no support, as by a certain quantity of blood under them, to act as a counter pressure, they would be liable to injury from the superincumbent mass of blood in the aorta.

4thly. A vacuum being formed by the expansion of the ventricle, the valves would be drawn downwards with considerable force to fill it up, and thus an additional weight be unnecessarily imposed on them.

Lastly. In a very rapid pulse, say 160, we can scarcely conceive the sides of the left ventricle to be closely approximated through their whole extent at each pulsation, and separated again, the usual quantity of blood as in health being expelled at each contraction. But we can readily admit that such a number of palpitations may be effected, the ventricle contracting but slightly at each beat; or a very small quantity of blood may be contained in the ventricle at each contraction, and thus supersede the necessity of the ventricle being much dilated; and we may observe, that in those cases where the pulse is so frequent as I have mentioned, it is never full and strong, but on the contrary, weak and thready, evidently proving that a very small quantity of blood indeed is forwarded at each contraction of the ventricle."

Our author goes on to state that, in the erect posture, the column of blood in the arch of the aorta, together with that in the carotids, presses on the semilunar valves, and opposes the egress of blood from the left ventricle. The arteries being all full, a considerable *vis à tergo* is necessary to force the blood in all directions, but especially upwards. In the perpendicular position, too, the return of blood by the veins from all the lower part of the body is much retarded by gravitation, and consequently requires greater force from the heart to drive it through the capillaries, and, if you please, pump it up from the veins.

"In the horizontal position these obstacles are lessened or removed; the blood in the carotids and arch of the aorta does not press with such force upon the valves, but chiefly the *veins*, namely, all those below the heart, being placed in the most favourable position for *spontaneously* returning their contents, remove an immense obstacle to the egress of blood from the left ventricle. Hence it follows, that resistance being opposed to the heart in the horizontal position, and the same power exerted, a greater quantity of blood is propelled at a time, and consequently the number of pulsations necessary to transmit the same quantity in a given time in the erect posture diminished.

The frequency of pulsation, then, is in a direct ratio to the obstacles presented to the heart's action, whether those be mechanical or arising from the debility of the heart itself. On the supposition of the correctness of this view, can be explained, I think, all the phenomena so closely observed by Dr. Graves."

We do not think that this explanation is correct or satisfactory. Mr. B. seems to forget that the heart, having once overcome the resistance of the arteries, and injected its contents into these vessels, their elastic and muscular coats perform all the rest. The blood is prevented from returning into the ventricle by the semilunar valves, and consequently it must be forced along the arteries and through the capillaries by the arteries themselves. Now, as far as gravitation is concerned, the arterial circulation, in all parts below the heart, is favoured rather than checked; so that the ingenious theory here broached cannot be made available. We cannot offer a satisfactory reason, ourselves, for the increased frequency of the pulse in the erect posture; but we imagine that it is far more connected with the muscular exertion of standing than with gravitation. Thus, the pulse is increased by the simple change from the horizontal to the perpendicular position; but it is still more accelerated by running up stairs, or up a hill, proving how much influence muscular contraction has on the heart and arteries. We apprehend that standing and walking give rather resistance than assistance to the arterial circulation, by the pressure of the muscles on the vessels; and the heart may thus be called upon for a greater number of contractions. The venous circulation ought to be accelerated by muscular action; and yet we invariably see the veins swell by exercise, as is very apparent in horses, and in the

arms of blacksmiths and others, while straining the muscles.

DANGER OF ERGOT OF RYE IN LARGE DOSES.

In a report from the Wellesley Female Institution, in the July Number of our Dublin contemporary, there are a few remarks on the *indiscriminate* and *inordinate* employment of secale cornutum, by Dr. Maunsell. Mary Redmond, in the fourth month of pregnancy, was seized, after a fright, and severe exercise, with hæmorrhage from the vagina, which continued at intervals for several days. On the 10th of March, 1834, at six in the afternoon, Dr. Churchill saw her, and gave her 45 drops of laudanum. At 9, she was so weak that a plug was introduced. At 7 next morning the plug was expelled, with considerable hæmorrhage, and a grain of opium, with some acid mixture, was given every two hours. At 8, p. m. the hæmorrhage set in again, and Dr. C. gave her ʒss. of the ergot at once, repeating it in half an hour. On the 12th, she had a violent head-ache; and, in the course of the day, became delirious, and could hardly be kept in bed. These symptoms yielded to purgatives, cold lotions, blisters, &c. In a few days afterwards, the hæmorrhage again returned, and the ergot was repeated, with another recurrence of delirium, but in a slighter degree.

The second case was a Mrs. Forest, two months pregnant, who was attacked with hæmorrhage on the 21st April, and for which the usual remedies were prescribed. Next day, the discharge having recurred in an alarming degree, the infusion and substance of half a drachm of the ergot was given by Dr. Churchill in two doses, at 15 minutes interval. After taking it, she fell asleep, and on awaking the discharge returned. Another scruple of the ergot was given her, which produced vomiting after an hour. On the following day she was in a state of half stupor, with violent headache and depressed pulse. These symptoms gave way to proper medicines. These two cases excited inquiry, when it was found that they did not stand alone. A case was related to our author by Dr. Johnson, in which, through mistake, the infusion and substance of two drachms of the ergot were given in two doses. In six hours, Dr. J. was again called, and found the patient in a state of incomplete coma, with livid face and muttering delirium. There was no uterine action induced by this extreme dose. She was delivered by the forceps, and remained 30 hours delirious and and in a state of partial stupor. She had a bad recovery. In another case, where the ergot was largely used, Dr. Johnson saw complete gangrene of the external parts, with death in six hours after delivery. In a third, the same experienced physician witnessed extensive sloughing of the vagina, without any other probable cause. Mr. Cusack informed our author that similar cases had occurred in his practice. In a German work, too, the author finds that Professor Joerg, of Leipzig, made experiments on himself, his pupils, and on animals, from which it appeared that nausea, vomiting, pains in the abdomen, weight and pain in the head, with vertigo, followed large doses of the ergot.

The foregoing facts are not sufficient to prevent the moderate use of this important medicine; but they ought to be borne in mind, and prove a check to the reckless manner in which this medicine is now sometimes administered.

ON SCROFULA. By JAS. EAGER, M.D.

Dr. Eager has published a somewhat elaborate paper on the nature and treatment of a disease, which proves a great scourge in this country. The author was a house surgeon in some of the Parisian hospitals, and had good opportunities of witnessing the effects of various modes of treatment, and especially the treatment by iodine. On the nature and causes of this too well known

disease, we need not dwell. The exhibition of iodine on a large scale at the Hospital of St. Louis, in Paris, and the wonderful cures which are said to be performed there, engage our author's chief attention in this paper, and our's also.

"The use of iodine requires the greatest prudence. It has been administered internally both in a simple form and combined with iron, mercury, and potass, in the form of pill or in solution. Externally, combined with lead under the form of ointment, or dissolved in water in its simple state, either in lotion, injection, or bath. All these means have had their respective advantages. They were consequently used on various occasions. Iodine taken internally constitutes the basis of the treatment where the stomach is not affected. The results of cutaneous absorption are too doubtful to admit of frictions as the principal form of administering iodine. Children take pills with much difficulty. Pure iodine may be given in the form of tincture diluted with water. Two reasons, however, prevent us from using the tincture at this hospital. In the first place the fear of mistakes in dropping, mistakes the more easily made when there are many children under treatment; and secondly our apprehensions lest the water of Arcueil (which is used exclusively in this establishment, and which contains a large quantity of calcareous salts,) may alter the nature of this medicine. The same objection holds good with regard to the æthereal tincture of iodine, the simple or ioduretted solution of hydriodate of potass, and the alcoholic æthereal tincture of ioduret of mercury. We use the solution of iodine in distilled water called by Lugol, 'Eau minerale iodée.' Each pint of water contains two grains of iodine and four grains of hydriodate of potass, the latter being added to render the former more soluble. We have not deemed it prudent to adopt the use of the solutions of different degrees of strength which Lugol employs; because in the treatment of children, particularly when they are numerous, these different proportions offer many inconveniences without any real advantage. It is much more simple to administer a solution that contains a fixed quantity of iodine, which may be prescribed at will in more or less large doses, than to have for each patient solutions that contain a variable quantity of iodine.

The dose varies with the age, the state of the digestive canal, its influence on the disease, always beginning with three ounces of the solution, which may be gradually augmented to 12 ounces in the day. This is the strongest dose we have given, viz. ʒvj. in the morning and ʒvj. in the evening. Each ounce contains the $\frac{1}{8}$ of a grain of iodine and $\frac{1}{4}$ of a grain of hydriodate of potass. In following this method we know the exact quantity prescribed. After the use of this proportion for some time, we thought to double the quantity of iodine for each pint, but were soon obliged to abandon it in consequence of the disagreeable taste of the medicine, and a sensation of heat which it occasioned in the throat. The solution may be sweetened immediately before use with sirup of gum. If mixed with this sirup long before hand, the iodine becomes decomposed, and the solution loses both its colour and taste. In order to preserve it long fit for use, it should be kept in bottles well corked and opened as seldom as possible. The smallest dose to begin with is ʒj. morning and evening, which may be increased to ʒvj. each time as before-mentioned. This dose is even stronger than that Lugol recommends for adults. When no accidents occur to contra-indicate its use, we continue this solution during four or five weeks, then we stop it, and give a purge of sulphate of soda or magnesia. The purgative is repeated two or three times before we return to the use of the solution. The suspension continues generally fifteen or twenty days. We then resume, and continue its use a month, then stop it again to give the purgative as before said. It sometimes happens that acute accidental diseases oblige us to discontinue the treatment for some time. Diarrhœa and emaciation, which have been so much dreaded, seldom occur; when they do, they always cease on stopping the medicine. I have seen but one case in which the patient became thin; all the other chil-

dren, on the contrary, have become very fat. The appetite has increased, and their soft flesh become hard and coloured. I have seen a case in which the use of iodine was followed by cardialgia, and this affection ceased on using ʒj. of bark once a day, without discontinuing the iodine; and after a short time we were able to give the medicine alone. It sometimes happens, though seldom, that the use of iodine ulcerates the mouth and affects the breath as in mercurial salivations. In some females symptoms of cerebral congestion appear, such as epistaxis, which yielded to rational treatment. It is remarkable that these symptoms manifested themselves at the period of puberty, and consequently may be ascribed more rationally to a deviation of the menstrual flux, than to any other cause. Messrs. Gardner and Coindet attribute to a kind of iodine saturation, accidents which have been remarked, in some patients, such as fevers, palpitation, dry cough, tremblings, loss of strength, and swelling of the legs. At the Children's Hospital we have not remarked such cases. This may be owing to the precaution we use of purging the children from time to time. Moreover, these symptoms are extremely frequent in the third stage of phthisis in patients who never used iodine. The ioduret of iron may be given with good effect in this affection, more particularly in cases where the patients are very pale, and their flesh soft and flabby. This medicine may be given in larger doses than the hydriodate of potass. We begin by half a grain in ʒj. of water morning and evening, and increase it half a grain every four days. It may be increased to ten grains a day; in higher doses it induces vomiting. The solution of ioduret of iron produces diarrhœa much more frequently than the iodine solution. Iodine frictions are very useful auxiliaries to its action internally. We rub the tumours with an ointment composed either of ioduret of lead, ioduret of mercury, or ioduret of potassium. It sometimes happens (as with other medicines in all diseases,) that the ointment first used brings the tumour to a certain degree of diminution, and then it remains stationary. In such cases it is useful to substitute one of the others, and by this means the absorbent system is kept in a state of salutary excitement. The ointment of ioduret of mercury is composed of ʒj. axunge, and ɜss. of ioduret of mercury, that of lead of ɜj. to ʒj. of axunge, and that of ointment of hydriodate of potass with iodine, of ɜj. hydriodate and twelve grains of pure iodine to each ounce of axunge. The ointments of ioduret of mercury and potass determine a pricking pain that continues fifteen minutes, that of lead does not produce this sensation although applied to ulcers, spread on linen or charpie. A child ought to be rubbed but once a day, and an adult twice, in consequence of the skin being less irritable, and absorption less active in the latter; each friction during five or six minutes; and the quantity of the ointment varies with the size of the tumour, the minimum being that of a small pear or nut. We have in no case relied on frictions as the sole means of cure. They have always been combined with iodine internally and in baths. It is a matter of perfect indifference to which of the ointments you give a preference. For injecting fistulous trajets we use a solution of twelve grains iodine and twenty-four hydriodate of potass in one pint of water."*

An iodine bath is used in the hospital; but Dr. E. should have given us English weights and measures, instead of litres, &c., which are unintelligible to most people on this side of the Channel.

"Sixty-seven female children have been treated with iodine for a period sufficiently long to enable us to determine its effects with precision. Their age varied from four to fifteen years, a little more than half were over ten years old. In all of them the disease was of long standing; one was in the hospital since 1822, two since 1826, six since 1828, ten since 1829, twenty-six since 1830, and thirty-two were admitted since 1831, either before or after the 1st April, at which period the treat-

* Dublin Journal, July, 1834.

ment commenced. In all these children the disease presented itself under different forms. Fifteen of the sixty-seven who were treated by iodine were discharged cured of the apparent symptoms of the disease; fourteen experienced considerable amendment, which announced a speedily approaching cure. In thirteen others, although the improvement was less evident, one could judge that the cure would take place at some not far distant period; five received but little benefit from it, and, in fine, twenty did not receive the slightest advantage from the use of this medicine. Among the children cured was one admitted in 1826, two in 1829, seven in 1830, and five in 1831. Among those who experienced considerable benefit, was one admitted in 1826, two in 1828, three in 1829, five in 1830, and three in 1831. Of the twenty who were not at all relieved, two were in hospital since 1828, four since 1829, seven since 1830, and the remaining seven since 1831. All these children, with a few solitary exceptions, were much more affected at the period they commenced the use of iodine than at the time of their admission. The disease had increased with their sojourn of many months, and even years, in the wards."

Seventeen of the sixty-seven had glandular swellings. In only four of these did the tumors entirely disappear. In thirteen cases the iodine completely failed. When left to Nature, the ulcers of scrofula take many months to heal; and even then leave ugly cicatrices. "On the contrary, when art interferes, the cure is obtained in fifteen days, or a month at the farthest." Our author concludes by averring that no other remedy hitherto used in scrofula has been so successful as iodine. The paper appears to be a translation from the French rather than an original essay; nevertheless it is well worthy of perusal by practitioners in this country.

ANOMALOUS TUMOUR IN THE RIGHT HYPOCHONDRIUM. By R. L. NELSON, Esq.

[Dublin Journal, July, 1834.]

The following case, which we shall greatly abridge, is very interesting.

An English physician, aged 27 years, placed himself under the care of Mr. Nelson, in July, 1833, labouring under dyspeptic symptoms of an aggravated kind. He had a delicate, bilious appearance, and stated that he had been subject from youth to occasional pain in the right side, accompanied by derangement of the bowels. He had now loss of appetite, thirst, furred tongue, inertness, slight pain in the right hypochondrium, accompanied by tenderness and fullness of the liver in this situation. Bowels confined, urine high coloured. Under slight aperients and proper diet he rapidly recovered; but returned to the narrator in a month, stating that he had hepatitis. On examination the liver was found to be much enlarged, painful to the touch, and harder than natural. He was put upon proper treatment, but improved slowly. Early in September Mr. N. discovered a small tumor below the margin of the right false ribs, apparently placed upon the inferior portion of the right lobe of the liver. It communicated to the finger a slight pulsation, which increased daily, till it became evident to the eye. At the end of three weeks the tumor was the size of half an apple. "It was accurately circumscribed, and presented both to the feel and by auscultation the peculiar purring thrill of aneurismal varix." The action of the arterial system generally became increased, with the increase of the tumor. The aorta also exhibited a remarkably loud *bruit de soufflet* through its whole course. Dysphagia was considerable. Leeches, blisters, digitalis, &c. were employed without advantage. Dr. Stokes met in consultation in the last week of September, and a careful examination was instituted and repeated several times. It was thought that there existed inflammation of the lining membrane of the aorta—enlargement of the liver—and an aneu-

rismal tumor of uncertain nature and source. Matters grew progressively worse—the action of the heart and arteries becoming more violent, and the pulsation of the tumor more violent. In consequence of getting cold, some bronchial inflammation was set up, and three leeches to the trachea produced such a hæmorrhage as nearly destroyed life. They were obliged to give him cordials, and even quinine. In consequence of, or as a coincidence with the hæmorrhage, the aneurismal pulsation ceased altogether, and the size gradually decreased till the tumor was no larger than half a marble. Before Christmas it had totally disappeared. After this he appeared to recover—to gain strength, and even flesh, so as to be able to walk a mile without much fatigue. He was, however, rather incautious, and twice caught cold, with repetition of the bronchitis. In the mean time anasarca of the lower extremities appeared, and gradually progressed to the trunk, with difficulty of breathing and other distressing symptoms, as those of ascites and tympanitis. He died rather suddenly on the 12th of April of the present year.

Examination post-mortem. The liver was found to be somewhat enlarged, and generally tuberculated. The superior lobe of the left lung was hepatized —water in the cavities of the pleura—marks of inflammation in the trachea and bronchia—left side of heart hypertrophied and dilated. The arteria innominata was considerably increased in calibre, and the left subclavian slightly. The aorta, in its transverse portion, at the point where it is joined by the ductus arterious, exhibited a singular constriction, as if a sharp instrument had been pressed upon its upper surface until it had diminished the calibre by about one half. There was no deposition in its coats of osseous or calcareous matters, and the ductus arteriosus was open. The aorta, in the rest of its course, was somewhat smaller in calibre than usual. The semilunar valves of the aorta were either removed or completely obliterated by an irregular fleshy mass which grew from the line of junction of the vessel with the heart, and almost entirely filled the canal. The communication between the heart and the aorta was reduced to an irregular slit-like opening, through which a common probe could not pass without difficulty; and yet through it all the blood of the system found its way.

There then was the great seat of disease, all the other phenomena being mere effects, and not causes. The author very naturally asks what could have been the nature and seat of the circumscribed and pulsating tumor which occupied the attention of the medical attendants for three or four months? No trace of lesion could be detected any where to account for this tumor. We have no doubt, in our own mind, that it was a distended gall-bladder, and that the pulsation was communicated from the heart.

A case occurred in our own practice, where a circumscribed and pulsating tumor appeared in the epigastric region, and was pronounced to be aneurism of the cœliac artery by one of the most distinguished pathologists of London, and that after repeated and careful examination. After the exhibition of some doses of calomel and opium, followed by brisk purgatives, a quantity of viscid bile came away, and the cœliac aneurism disappeared. We would therefore caution our brethren against confident diagnosis in pulsating tumors; for this pulsation can be communicated, especially to a globular body filled with fluid, as the gall-bladder for example, with such astonishing similitude to an aneurism, that it is next to impossible to distinguish between them.

HOMŒOPATHY.

The Rev. Thomas Everest has addressed a letter to the medical practitioners of Great Britain, in favor of the new doctrine. He commences his pamphlet with some very handsome eulogies on the medical character, and then gives us a concise history of the doctrine from its origin in the brain of a German student, in 1790, down to the pre-

sent time. The Reverend Gentleman calls upon us to embrace a system which is uterly opposed to every thing that has been taught and learnt since the days of Hippocrates. "Be it right (says he) or be it wrong, it is, at any rate, utterly opposed to the present practice, and there cannot by any possibility be any alliance or truce between homœopathy and allopathy. Hahnemann's theory must either be admitted or rejected altogether. It allows of no compromise—it will not amalgamate in any way whatever with the allopathic system."

"It is doubtless well known to you, gentlemen, that all over the Continent of Europe, and in America also, Homœopathy *is said* to be flourishing—*it is said* to have performed, and to be daily performing cures which are almost miraculous; *it is said* to have so far surpassed polypharmacy, as to have cured on many different occasions dangerous fevers in 24 hours, mental affections hitherto regarded as incurable, chronic complaints of very long standing, which had defied with equal imperturbability, the lancet and the blister, the pill and the draught, the change of air, and the change of diet, the physician and the druggist, the surgeon and the nurse—it is said amongst other wonders, to have supplied a complete and almost unfailing specific against the modern opprobrium medicorum, the Asiatic cholera."

It was very right for Mr. Everest to use the saving term "it is said," for we can assure him that, as far as we have seen the practice of homœopathy in this metropolis, there is not one word of truth in all the cures that "*are said*," to have been performed by the new system. All the cures that have taken place were effected by nature, aided probably by the influence of the imagination—which has much to do in sickness. Mr. Everest calls on us to give homœopathy a fair trial, and not to condemn it untested. Our answer is, that we have seen it repeatedly tested by the homœopathists themselves, without, in any instance, the slightest proof of benefit. We ask Mr. Everest if we are justified, after such evidence, in trifling with human life, and allowing diseases to advance uncontrolled by active remedies? For our own parts we should consider ourselves culpable if we permitted the well-known resources of our art to remain in abeyance, while the inert and ridiculous remedies employed by the homœopathists were set in array against dangerous diseases. Suppose Mr. Everest were addressed by a medical practitioner, and told that, in a certain chapel in London, the gift of tongues, and inspirations of the Holy Ghost were conferred, and that this solemn truth was asserted and confirmed by hundreds and by thousands:—would not Mr. Everest have good cause for abandoning the old scriptural ritual of his church, and adopt or test the new light. We apprehend that the author of this pamphlet would spurn the idea of embracing the Regency-square system of theology, though the miracles of Irvine are not a whit more fabulous than the cures of Hahnemann.

SOMNAMBULISM. CASE OF JANE C. RIDER.*

We apprehend that the state of somnambulism is but little understood. It appears to us to be more allied to delirium (not from disease) than to sleep. In delirium, the mind is so occupied with one or more subjects, that it receives not, or attends not to impressions conveyed through the medium of the senses, unless these impressions relate to the subject of the delirium. But the senses, such as sight, touch, hearing, &c. are quite as alive to the subject of the delirium, and to all impressions connected with it, as if the individual were wide awake. We will endeavour to illustrate this. In very early youth we had a school-fellow who was a somnambulist. He frequently got out of bed in the night, and walked along the range, or parapet wall, of a bridge in the neighbourhood,

* By L. W. Belden, M.D. 18mo.

returning to his bed in perfect safety. The writer of this article met the somnambulist one moonlight night on his way to the bridge, and observed him attentively. His eyes were open, but he seemed to regard no surrounding object. He took no notice of his schoolfellow, but kept his eye on the path along which he was walking. We followed him at some distance, in the most silent manner. He cautiously climbed up at one end of the parapet wall, and slowly marched along, apparently without fear. He got down at the other end, walked across the road, and returned by the other wall to the road again, after which he went home and to his bed. Sometimes he had an imperfect recollection of the transaction, but always asserted that it was a dream. It may be remarked that the school-boys were often in the habit of running along the parapet-walls of the bridge, by way of bravado, in their way to and from school. The boy's mother watched him one night, and when she observed him approach the bridge, she shrieked out, when the boy started wildly and fell into an epileptic fit. To these fits we believe he continued subject ever afterwards, but he ceased to be a somnambulist.

There are cases, however, which are more intricate or inexplicable than the above, and which bear a considerable resemblance to insanity, or to injuries of the brain, attended with morbid sensibility of one or more organs. In those instances where it occurs in the form of a fit or paroxysm, preceded by certain premonitory symptoms, there is, almost invariably, some disorder of a bodily function. There is entire interruption of consciousness—or rather of memory, the individual, on waking retaining no recollection of what has passed. Knowing the fallacies which have crept in, knowingly or unconsciously, into all cases of the wonderful kind, we freely confess that we do not believe one word in ten of the most *authentic facts* that have ever been put on record in such instances. As the present company is always excepted in common conversation, so we must except from scepticism, whatever comes directly before us on the evidence of living witnesses. Some of the statements on the following case are startling; but the narrators are highly respectable, and though they may have been occasionally deceived themselves, we are quite sure they are incapable of the wish to deceive others.

Case. Jane Rider, aged 17 years, is the daughter of a respectable mechanic, and her mother died of disease in the brain. She was always of a mild, obliging, and intelligent disposition. Her education was much superior to her station in life. She is fond of poetry, and correct in her taste. She is plump, but rather handsome. She is subject to headachs and other symptoms of determination to the brain. She had also chorea a few years previously.

The affection in question first made its appearance in the night of the 24th June, 1833.

"I was called, under the impression that she was deranged, and such at first was my own belief. She was struggling to get out of bed, complaining very much at the same time of pain in the left side of the head. Her face was flushed, the head hot, eyes closed, and her pulse much excited. Attributing the attack to the presence of undigested food in the stomach, I gave her an active emetic, which she took voluntarily, supposing me to be her father. She rejected a large quantity of green currants, after which she became more quiet, and soon fell into a natural sleep, from which she did not wake till morning; when she was totally unconscious of every thing which had passed in the night, and could scarcely be persuaded that she had not slept quietly during the whole time."

In about a month the fit recurred; she was allowed her own way. She dressed, went down stairs, and made preparations for breakfast. She arranged the table with precision, brought cups, &c. out of a dark closet, and avoided all intervening obstacles.

"She then went into the pantry, the blinds of which were shut, and the door closed after her. She there skimmed the milk, poured the cream into one

cup and the milk into another without spilling a drop. She then cut the bread, placed it regularly on the plate, and divided the slices in the middle. In fine, she went through the whole operation of preparing breakfast with as much precision as she could in open day; and this with her eyes closed, and without any light except that of one lamp which was standing in the breakfast room to enable the family to observe her operations. During the whole time she seemed to take no notice of those around her, unless they purposely stood in her way, or placed chairs or other obstacles before her, when she avoided them, with an expression of impatience at being thus disturbed."

She finally went to bed, and, in the morning, finding the breakfast things prepared, she expressed surprise and dissatisfaction that she had been allowed to sleep so long.

After this the paroxysms became more frequent, and varied without end. Sometimes the whole paroxysm was passed in bed, where she sung, talked, and repeated pieces of poetry. One night she was seen to thread a needle in the dark—another, with her eyes closed—in a third, she prepared a dinner with her eyes closed. The following is a description of the paroxysms at a period when vision was extremely acute. After this was lost the other phenomena became less remarkable.

"The state of somnambulism was usually preceded by a full, heavy, unpleasant feeling in the head—sometimes by headach, ringing in the ears, cold extremities, and an irresistible propensity to drowsiness, attended with a feeling as if weights were appended to the eye-lids. There was almost always a slight contraction of the eye-brows, the cheeks were flushed, and sometimes tinged with a crimson hue. By great exertions, the fit might be put off for hours after the appearance of these symptoms; but, in order to gain this reprieve, it was necessary for her to walk, or be engaged in some active employment. The most effectual preventive was exposure to the open air. The moment these precautions were relaxed and sometimes even in the midst of her active duties, she experienced what she described as a sense of rushing to the head, attended with a loss of the power of speech and motion. If in this state she was immediately carried into the open air, the fit was often arrested; but if this was delayed a moment too long, she lost all recollection, and could not by any efforts be aroused. To a spectator she appeared like a person going quietly to sleep. Her eyes were closed, the respirations became long and deep, her attitude, and the motions of her head, resembled those of a person in a profound slumber. During the fit, the breathing, though sometimes natural, was often hurried, and attended with a peculiar moaning sound, indicative of suffering. At times the pulse was accelerated, but generally it did not vary much from the natural standard. I have remarked, that in her first paroxysm the head was hot, but such was not commonly the case, nor was there any peculiar throbbing of the temporal arteries—the hands and feet, however, were almost invariably cold.

Her manner differed exceedingly in different paroxysms. Sometimes she engaged in her usual occupations, and then her motions were remarkably quick and impetuous—she moved with astonishing rapidity, and accomplished whatever she attempted with a celerity of which she is utterly incapable in her natural state. She frequently sat in a rocking-chair, at times nodding, and then moving her head from side to side with a kind of nervous uneasiness, the hand and fingers being at the same time affected with a sort of involuntary motion. In the intervals of reading or talking, and even when engaged in these very acts, her nods, the expressions of her countenance, and her apparent insensibility to surrounding objects forced upon the mind the conviction that she was asleep. Occasionally she was cheerful, disposed to talk, and willing to exercise her powers; the greater part of the time she was irritable and petulant. Pain in a circumscribed spot on the left side of the head was, I believe, always an attendant on the paroxysm, and frequently occasioned a degree of suffering almost beyond endurance. To

this spot she invariably pointed as the seat of her agony when she repeated the expression, 'it ought to be cut open, it ought to be cut open.' Occasionally the whole system was thrown into agitation, and she presented the appearance of a person in a violent fit of hysterics.

Her eyes were generally closed, but at times they were stretched widely open, and the pupil was then very considerably dilated. These different states of the eye seemed to occasion no difference in the power of seeing—she saw apparently as well when they were closed, as she did when they were open. In the day time she always had the eyes covered with a bandage during the paroxysm, nor would she allow it to be removed for a single moment, unless the room was unusually dark. In order to test the sensibility of the eye, I took one evening a small concave mirror, and held it so that the rays proceeding from a lamp were reflected upon her closed eyelid. When the light was so diffused that the outline of the illuminated space could scarcely be distinguished, it caused the moment it fell on the eyelid, a shock equal to that produced by an electric battery, followed by the exclamation, 'why do you wish to shoot me in the eyes?' This experiment was repeated several times, and was always attended with the same result. It was also tried when she was awake, and the effect, though less striking, was very perceptible. The same degree of light thrown on my eyelids, occasioned no pain.

How far she was sensible to the presence of surrounding objects, it is very difficult to determine; indeed facts seem to prove that she was not in every paroxysm, alike in this respect. In the early stage of her complaint, she appeared to take little notice of persons, unless they were connected with her train of thought, and then she regarded those with her only as the representatives of the persons whom she imagined to be present. Nor did the sight or the hearing have any tendency to correct the false impression. Thus, in her first paroxysm, she regarded me as her father, and continued to do so as long as I remained with her; but, in her subsequent fits, this idea was never revived. Her conception of persons was generally made to correspond with the idea of the place in which she conceived herself to be. She was in the habit, when well, of spending her evenings in the room with the children of the family, and it was in their company that she often imagined herself to be during the paroxysm. The questions which were at these times proposed to her to test her powers of vision, were cheerfully and readily answered, because they were questions which it was natural for children to ask; or, at least, she supposed them to proceed from children. Much that she said was also directed to them, though it was evident, at times, her conceptions and perceptions were strangely intermingled. In a paroxysm, soon after the arrival of her father, he asked her a question which she answered by addressing a little boy belonging to the family, who was not then in the room; but his knife which he placed in her hand, she immediately recognised as her father's, and wondered how that came to be in Springfield while he was in Brattleborough. At a later period of her complaint, she appeared to comprehend more of what transpired in her presence, and accordingly she obstinately refused to read cards, or submit to experiments of any kind. These trials she then evidently regarded as so many attempts to impose upon her; and in adopting this conclusion she reasoned with perfect consistency; for if she could actually see as she appeared to—if to her vision, night was converted into day, and darkness into light, while she was unconscious of any thing peculiar to herself, what could be more annoying than to be constantly teased with questions which to her senses were perfectly obvious? If a request were made of her which appeared reasonable, especially if it related to her customary duties, she readily did whatever was required."

It is curious but certain that she recollected, during a paroxysm, circumstances that had occurred in a previous attack, but which had been forgotten

in the interval. Proofs of the fact are adduced, but we need not quote them. All attempts to rouse her from these states of somnambulism were fruitless. She heard, felt, and saw, but the impressions would not awake her. A pailful of cold water was poured over her in one instance, when she exclaimed, "why do you wish to drown me?" She then went to her chamber, changed her dress, and returned. Large doses of laudanum were given her to relieve pain, which it did, and she awoke much sooner afterwards. At the termination of a paroxysm, she always sunk into a sound natural sleep. The paroxysm appeared to be connected with disordered digestion. Though the appetite was good, the food occasioned oppression, with headache and acidity.

In November, experiments were made to ascertain the acuteness of her vision. The following will suffice as an example.

"She was seated in a corner of the room, the lights were placed at a distance from her, and so screened as to leave her in almost entire darkness. In this situation she read with ease a great number of cards which were presented to her, some of which were written with a pencil, and so obscurely, that in a faint light no trace could be discerned by common eyes. She told the date of coins, even when the figures were nearly obliterated. A visitor handed her a letter, with the request that she would read the motto on the seal, which she readily did, although several persons present had been unable to decipher it with the aid of a lamp. The whole of this time the eyes were to all appearance, perfectly closed."

As her malady was aggravated by the curiosity of visitors, and the experiments made on her, she was removed to the hospital in Worcester (America) on the 5th December last. Here Dr. Woodward kept an exact register of occurrences corroborating, in all essential points the foregoing statements and many others. In the hospital she was put on a regular system of diet and medicine—her health greatly improved—and her somnambulism diminished. When the accounts closed she was a great deal better, and we have reason to think she will completely recover. From various circumstances detailed in the narrative, but which we could not introduce here, we are strongly impressed with the belief that there is no imposture in this remarkable case. We are certainly not much inclined to credulity, and are much more likely to run into the opposite extreme; but we see nothing in the foregoing case, extraordinary as it may appear, which is incompatible with the powers of the human frame, and its spiritual tenement under peculiar states of morbid excitement.

NITRATE OF SILVER IN EPIDEMIC CHOLERA. By CHARLES LEVER, M.D.

We should not have noticed this subject, were it merely as setting forth a remedy for a disease which lately frightened these isles from their propriety. But it is on another account, namely, the safety with which the nitrate of silver may be taken internally, and that in large doses. The name of the medicine, and its caustic effect on the external surface of the body, have checked its internal use; though the phenomena attendant on its application to sores and morbid structures generally, might have lessened the fears of practitioners rather than increased them. The nitrate of silver is applied to an irritable ulcer on the leg or other part, and the pain is very little, while the irritability is seen to be materially lessened in a short time afterwards. To give a still more striking example: the fauces are red and sub-inflamed—the passage of food gives much discomfort; and there is a constant secretion of viscid saliva from the parts, clearly the product of inflammatory action. A few applications by means of a sponge to the fauces relieve or cure all these symptoms. Now it is to be remembered that the membranes at the extremities of all tubes are much more sensitive than any other portions of the canals; and therefore, as we find that the fauces, the

pharynx, &c. will easily bear a solution of nitrate of silver containing five or six grains to the ounce, why should we fear that the stomach itself would be unable to bear a similar medicine? We have exhibited the nitrate of silver to some hundreds of patients—often in the dose of four and six grains a day, and never saw any injurious consequences result. The remedy is exceedingly valuable in many affections of the stomach.

In our Liverpool contemporary of July last, Dr. Lever has stated that during extensive observation of cholera in the cholera hospitals of the north of Ireland, he was led to attribute the general failure of remedies to the great irritability of the stomach, which prevented the reception, or the retention of medicines. The first case which Dr. L. relates was one of the most hopeless and deplorable character. The face, neck, and chest were deeply livid—skin cold—fingers corrugated—hearing gone—voice inaudible—pulse imperceptible—thirst insatiable; but vomiting incessant, whenever any thing was taken into the stomach. In this forlorn condition, Dr. L. dissolved 30 grains of the nitrate of silver in three ounces of distilled water, which she swallowed at once. She lay quiet for six minutes, when she vomited up a small quantity of whitish turbid fluid, and then remained perfectly at rest for twenty minutes, when Dr. L. left her. In three hours he returned, and found that the patient had sunk into a kind of slumber, and had had no recurrence of vomiting. The other symptoms remained the same. She continued in this state till the next day, without sickness; but with intense heat in the stomach. She drank freely all the night of weak brandy and water, without rejecting any of it. Reaction took place, and she completely recovered. Dr. L. saw the patient for nineteen months afterwards, and she never evinced any symptom of gastritis or other affection of the stomach. In the second case 20 grains of the nitrate were given in an ounce of distilled water. Most of it soon came up; but the vomiting ceased, and recovery took place. The usual dose, however, was ten grains to the ounce of distilled water. We think this document valuable, not only as respects the treatment of cholera; but as proving that the remedy, even in large doses, is unattended by danger.

Observations on Internal Aneurisms. By Professor Harrison, of Dublin.

The following observations are contained in a letter from Professor Harrison to Dr. Stokes, in the July Number of our Dublin contemporary.

"In alluding to the pain, among other symptoms attending internal aneurisms, I have remarked, that although it is very frequently stated that the degree of suffering attending thoracic aneurism is trivial, when compared with that complained of in a similar lesion of the abdominal aorta; yet exceptions not unfrequently occur. Thus, I have known cases of aneurism of the arch of the aorta to have been accompanied almost through their entire course with intense, though often intermitting pain in the region of the heart, in the spine, or through the chest generally, or in one or both arms; while, on the other hand, I have seen instances of this disease in which the suffering was so trivial, and the symptoms were so faintly and equivocally expressed, that the disease was not ascertained until the *post mortem* examination revealed its real nature. In forming our diagnosis, then, in suspected cases of thoracic or abdominal aneurism, too much importance or reliance is not to be placed on the mere circumstance of pain being either slight or absent, or intense and of almost continued duration. The change in a blood-vessel denominated aneurism is of slow progress, and unattended by acute inflammation; the arterial tissue, though peculiarly organized, is not very sensible to pain, or subject to acute disease, therefore aneurism is not painful *per se* but only in proportion as the tumor may interfere with some adjacent organ, or excite irritation in some contiguous

sensitive structure. Thus aneurism in the arch of the aorta may disturb the action of the heart, or may irritate the trachea, or by extending, compressing, or in any way disarranging the neighbouring nerves, such as the left recurrent, the phrenic, or the cardiac plexus, may give rise to severe paroxysms of pain, both local and remote; yet in other instances of disease in nearly the same situation, the tumour may so shape its course as to steer clear of any interference with surrounding objects, and thus avoid all excitement or irritation, or even interruption, to their functions, except so far as the latter may be impaired by the anormal condition of a vessel, whose integrity must be so very essential to the existence and well being of the economy at large. The same remark may apply to aneurism of the thoracic aorta in the posterior mediastinum; the tumour in some cases proceeds through all its stages to its fatal termination, without much accompanying local pain, or decided premonitory indications, whereas in other cases, acute spinal irritation, difficult and painful respiration and deglutition, are almost constant concomitants; attention to the anatomical connexions of the vessel in this situation, and to the different directions it may take in different instances, may explain the variety of symptoms that present in different cases.

The abdominal aorta is in connexion with several important organs through its whole course; it is also invested in *three-fourths* of its circumference with a plexus of nerves, branches of which extend along the different arteries to the several viscera. All the visceral arteries are remarkable in this respect, but more particularly the renal, gastric, and hepatic; one continued nervous network surrounds each from its origin to its final distribution. From these circumstances, we should expect that aneurism of the abdominal aorta, or of its branches, should be attended with much pain and functional derangement; and such is generally, but not uniformly, the case. I have witnessed the dissection of three cases of large aneurism which had burst behind the peritoneum, and which, during life, had not been attended with much pain, or with any decided symptoms which could lead to a positive diagnosis. In each of these the tumour was connected with the posterior part of the artery; in one case it was situated close to the diaphragm, and the blood was partly injected into the posterior mediastinum, and partly into the abdomen, about the pancreas; in the second case, the tumour had burst into the cellular tissue round the kidney; and in the third case, the symptoms had been during life so similar to those of psoas abscess, that uncertainty as to the true nature of the disease occasionally existed—(See Surg. Anat. of the Arteries, vol. ii. p. 25.) Although I have not sufficient facts before my mind on which to ground the assertion, I should yet consider that when aneurism arises from the *forepart* of the abdominal aorta and extends into the cavity, pain, and more or less disturbance of the adjacent viscera, will be more likely to occur. The stomach I have remarked to sympathise extremely in these affections; hæmatemesis has frequently occurred during their progress, and in one case death immediately followed a copious vomiting of blood, which must have been supplied from the capillaries of this viscus, as the aneurismal sac had no communication with it, and had poured its contents in a totally opposite direction.

In speaking of abdominal aneurism, I am led to another remark which appears to me to present some interest, namely, that in the abdomen we frequently meet with aneurisms of the *smaller* arteries, not merely the cœliac axis, or the mesenteric, but of the gastric, splenic, hepatic, &c. I have seen examples of each of these. I also recollect a remarkable case, in which, on opening the abdomen, I was surprised at the livid colour and great size of the omentum; it was injected with grumous blood, from the arch of the stomach to near the lower border of this process. On careful examination I found it had proceeded from an aneurism of the left gastro-epiploic artery; the tumour was about the size of an

egg, and had given way by a sort of slough between the layers of the gastro-colic omentum; the surrounding parts were slightly thickened, but the stomach was free from disease, as was the peritoneum from inflammation. In the Museum of the College of Surgeons there is a specimen of aneurism of the coronary artery of the stomach. I have seen one case of aneurism of the right hepatic artery, including the root of the cystic; the tumour had not opened; the patient died of dropsy and disease of the heart; the gall-bladder was shrivelled and empty. I have dissected a case of large splenic aneurism which caused death by bursting behind the peritoneum: the spleen was unusually small. Many years ago I saw an aneurism of the right spermatic artery about an inch distant from the aorta; the testicle was of the usual size, and apparently healthy; the tumour was about the size of a nut, and had not caused any injury to the surrounding parts, though it is probable, had the individual lived for some time, it would have proved fatal by bursting. In the course of last winter, I accidentally found in the dissecting room an aneurismal tumour on the left renal capsular artery; the subject was a female, about eight or ten years of age: the tumour was solid to the feel, and on cutting into it was found filled with successive laminæ of fibrinous matter; very little cavity remained, so that the disease might be considered as undergoing a natural or spontaneous cure. Although aneurism is a disease common to all parts of the vascular system, yet it is certainly very seldom found in any of the external arteries, except the principal trunks, such as the carotid, axillary, iliac, femoral, or poplitæal. I do not recollect any case of spontaneous aneurism in any of their smaller branches, though such are not unfrequent consequences of wounds or injuries; even in an artery of the size of the brachial, spontuneous aneurism is very rare. In the cranium it has been met with in the internal carotid, and in some of its primary branches; it has been also found, but very rarely, in the coronary arteries of the heart. It might prove an interesting inquiry to consider why the small arteries of the abdomen more frequently present this disease than arteries of a similar size do in any other situation. Is the cause of this fact to be found in any peculiarity of structure, of course, of connexion, or in function? probably on each of these circumstances it more or less depends. As to structure, the abdominal arteries are certainly very weak, particularly their middle coat; hence their great liability to rupture in the common process of injecting the dead body. As to course and connexion, no vessels in the body are more remarkable for numerous turns, angles, flexuosities, &c., and most of them run very much unsupported, except by the general pressure of the parietes of the abdomen. In function, too, many peculiarities present themselves to our attention which may serve to explain the frequent occurrence of this disease in the abdomen, as well as the great liability of the mucous serface of the alimentary canal to severe and frequent hæmorrhage: thus, the quantity of the blood circulating through this cavity must be very considerable; the active function that is so *frequently* exercised in *different* parts of the apparatus must require a proportional supply of blood, so that increased vascular actions must constantly occur in different situations and in rapid succession. The very remarkable freedom of anastomosis between the several vessels may probably be designed to facilitate the more rapid course of the blood from one organ to another, according as the respeciive functions of either may require it. The irritability of the small vessels may be inferred from the great supply of nerves with which they are furnished. I have not sufficient facts before me to decide on the pathology of these small abdominal aneurisms. I have not observed any diseased condition of the coats of the vessel in the vicinity of the tumour, so commonly observed in thoracic aneurisms. From the observations I have made, which, however, are insufficient, I consider that they commence by rupture, and not by dilatation of the internal tunics.

Yours very truly,

ROBERT HARRISON."

In a commentary on the foregoing paper, Dr. Stokes applauds the ingenious explanation of Professor H. in respect to the comparative frequency of aneurisms of the internal and external vessels—namely, the sympathies of arteries with organs. This leads Dr. Stokes to notice a species of arterial throbbing, either in the abdominal aorta itself, or, as Dr. Houston supposes, in the second order of vessels. The nature of arterial throbbing is little understood. It has been described as a nervous phenomenon—as the result of pressure on the vessel—and as a kind of aortitis.

"But there is a pulsation of the abdominal aorta or its immediate vessels, which is symptomatic of inflammatory disease in the digestive system, and which a long experience enables me to say may be considered an important assistance in diagnosis. A throbbing generally commensurate with the disease; removed by treatment calculated to relieve enteric inflammation, and aggravated by every thing which will increase this affection. In other words, we may have from enteritis or peritonitis a throbbing of the abdominal aorta or its vessels, perfectly analogous to the morbid action of the radial artery in whitlow, or of the carotids or temporal arteries in cerebritis."

The cases in which Dr. S. has most frequently observed it, are those of the gastro-enteric fevers of Ireland. Considering the latency or obscurity in which these fevers often exist, Dr. S. considers this means of diagnosis as a very important one. He does not mean to contend that this pulsation exists in all cases of gastro-enteric fever; but in many. It occurred also after corrosive poisons had been swallowed, and where the pulse was extinct at the wrist.

"In these cases we have frequently the following group of circumstances: fever, prostration, thirst, tenderness of the epigastrium or the ileo-cœcal region. The pulse at the wrist is often small and feeble, while the abdominal pulsations are comparatively violent. In most cases the other symptoms of gastro-intestinal disease are sufficiently plain. But in several instances this want of proportion between the action of the radial and abdominal arteries, *combined with fever*, has been the principal indication of enteric disease."

In some instances, he found that the pulsation was strongest in the direction of the right iliac artery, and subsided with the symptoms of the gastro-enterite. He has seen it with and without the occurrence of diarrhœa, and frequently re-appearing with relapse, errors of diet, or hypercatharsis. These circumstances, he thinks, may throw some light on the supposed cures of aneurism according to Valsalva's plan of treatment.

Our own experience entirely coincides with that of Dr. Stokes, in respect to epigastric pulsation—excepting that we are quite sure of having seen it arise from gastro-enteric irritation, as well as inflammation. We have seen it removed by tonics and sedatives. But the symptoms of irritation and inflammation assimilate so closely together, that it is often exceedingly difficult to draw the line of demarcation.

ON MANUAL ASSISTANCE IN ABORTION. By Mr. WAINWRIGHT, of Liverpool.

Mr. W. has published a paper on this subject in the 3d Number of the Liverpool Medical Journal, which deserves attention. Mr. W. does not advocate indiscriminate interference in cases of abortion; because, under proper treatment, the majority of cases will require no manual assistance. He properly observes, also, that "until every hope is lost of preserving the ovum, or until the condition of the parent demands energetic assistance, the adoption of manual aid would be altogether unjustifiable." Mr. W. contends that, in all severe cases of abortion, the state of the os uteri should be ascertained, and that as early, and as effectually, as during actual labour. This examination is peremptorily required when the discharge goes on from day to day, confining the patient to bed, and blanch-

ing her countenance. The following appear to be the practical maxims laid down by our author.

1st. In many instances, a *separation and partial expulsion of the ovum* will be found; and very slight assistance, by moving it from side to side, and gently drawing forwards, will at once remove the whole from the orifice, and the hæmorrhage will immediately cease. Case No. 2 offers an example of what may be experienced under those circumstances. The assistance required in this case was certainly not slight, nor easily afforded, yet the end was fully attained, and no mischief occasioned. It will be observed, that I found it requisite to steady the uterus whilst I introduced the fingers through the orifice, and that this was effected by the left hand applied above the os pubis. I must add, however, that I do not think this plan will be effectual in every case, as in some individuals I have found it almost impossible to overcome the action of the abdominal muscles, especialiy of the *recti*. These seem to act, in some cases, almost involuntarily, when the hand is applied to the abdomen, whilst in others, the hand may be forced with little difficulty into the pelvis. The vagina, too, will offer some difficulty occasionally, and doubtless more when the patient has never borne children. It is unnecessary, however, to dwell upon this point, as it must be evident that unless the hand be allowed some degree of liberty in its movements, the operation in question cannot be effected.

2dly. The next two states I would allude to, are, first, where the *os uteri is found dilated, or dilatable, and a body is found projecting above*; and secondly, where the *os uteri is found dilating, and the membranes projecting;* especially during the continuance of a pain. These cases I believe to be, in many instances, the same, only in a different stage. I say, in many instances, because I am quite aware how often the tender membranes give away, allowing part of the conception to be expelled, whilst the residue remains. I class them together, however, because the same treatment is often required. Should the symptoms not be particularly urgent, and especially if the pains be frequent, it may be well to wait a little, that, in the first case, the contents may be propelled somewhat lower, and that in both, if possible, the natural efforts may accomplish the expulsion. Under other circumstances, however,—as Cases No. 3 and 4 will shew,—manual assistance may be effectively and safely given.

3dly. It will sometimes be found, on enquiry, that a *fœtus has been expelled, but no secundines have been discovered.* Of course a most diligent search will be made for these, as it is very possible they may have been overlooked, or mistaken for a coagulum. Should the search however, be in vain, I could not acquit the practitioner of neglect, did he omit a vaginal examination, and were his patient afterwards to suffer from any of the effects of retained placenta. The decidua will often be found hanging at the os uteri; or if the pregnancy be rather more advanced, say about four months, it is not improbable that the funis,—or some apology for it, or a shred of membrane, or something,—may be suspended at the vagina, or at the os internum, and then the existence of something more within the uterus may well be inferred. Case No. 1 was of this description, and the treatment I adopted then I firmly believe to be the best that could be employed. The patient recovered extremely well. Some time had elapsed before I arrived, and I doubt not this explains the contracted state of the parts and the difficulty I had in extracting the portion which remained. I think, therefore, as little time should be lost as possible; and that a gentle and cautious effort should be made to dilate the os uteri, and to extract that which remains. In the later periods, at least, it may be remembered that the orifice has once been dilated to admit the passage of the fœtus, and surely little injury can be inflicted by distending it to the same extent, and often little more will be required. Here I would remark, that much misapprehension has been caused by this observation, 'that as before the 6th month the *hand* cannot be intro-

duced into the uterus, therefore no manual aid can be given before that period.' Now the truth is, that in the earlier months it is absurd to think even of introducing the hand. One, two, or three fingers are all that are required, and that are almost ever spoken of. Case No. 6 exhibits the fatal effects of allowing the placenta to remain. It is true, that in this case the first gush of blood might be sufficient to account for all the consequences, yet the subsequent losses must have contributed to the fatal result.

4thly. At other times, however, whether a portion of the embryo be expelled or not, *a rigid state of the os uteri* will be found, absolutely defying the most resolute to overcome it. One author, I find, confesses he could not succeed, though 'he tried with all his might, and repeated his efforts ten times!' This, it may be presumed, would oftener be found in first pregnancies, and here, I hope, no one will follow the example of this courageous practitioner. I may add, for the credit of modern obstetricy, it was not a modern accoucheur. This, then, is the case of all others for the tampon. I have never met with this case, and I must rely, therefore on the testimony of others. It is on this also that I rely, when I suggest, during the progress of such a case, the propriety of occasionally ascertaining the state of the os uteri. It may not be dilated at one visit, whilst it may be amply so at the next, and might then admit of manual aid.

LAMOTTE was called at two in the morning to an abortion of five or six months, from accident, attended with severe flooding. The os uteri was very rigid, but at six it was sufficiently dilated, and he effected the delivery. GIFFARD relates the case of a woman at about her sixth month, who had flooded for two or three days before he saw her. On the first day of his visiting her, he found 'the os internum not dilated enough to admit the end of one finger, and not easily to be dilated; on the second day she grew weaker, but still he could not dilate the orifice, but on the third day it was in a different state, and he quickly delivered her, when the hæmorrhage immediately stopped.' The same author relates an interesting case (No. 153), advanced only to the ninth or tenth week. 'The woman had had hæmorrhage for some days, so that she was very much sunk, and had fainted several times. The os internum was very narrow, not allowing one finger to pass up; yet with the end of one finger he felt a soft substance within, lying at the mouth of the womb. She had much pain in the back. Three hours after, the orifice admitted one finger, which he passed directly through, and, bending its extremity, hooked out the contents, when all pain and flooding ceased.'

The above quotations, I think, will be admitted as warranting the practice I have suggested under this head, and may also be taken as strongly illustrative of the general question.

5thly. The above cases I supposed complicated with hæmorrhage. There is, however, another class of cases, unaccompanied with this alarming symptom, in which I believe manual aid may most advantageously be afforded. I allude to those in which the fœtus has been expelled with *little or no flooding*, *but where the secundines* (*decidua or placenta*) *remain*. Cases No. 5 and 7 are instructive cases in point. The treatment adopted by Mr. PARK fully shews the practice usually employed, and this, with his observations attached, may, in the opinion of many, fully authorize its adoption in future. Few, I am sure, hold that excellent surgeon in higher estimation than I do, yet I cannot withhold expressing what I fully believe experience will justify me in stating. It is universally acknowledged amongst writers, that a woman is unsafe until the placenta is expelled, and who has not witnessed the uneasiness both of patient and friends until this is accomplished, proving a general consent to the same fact? In case No. 5, I left it, and the consequence was that it was detained two months, during which time the patient was never well; and at length it was expelled with a fearful hæmorrhage. In the sixth case it was left, and for six days both medical at-

tendants, patient, and friends were in constant doubt of something going wrong, but to our relief it was then expelled, a disgusting mass. These, however, I consider good escapes, rather than proofs of good treatment, because I find that reports of more serious consequences abound in the writings of those who have enjoyed the widest fields for observation. Dr. Burns says, p. 297,

'If the gestation has not advanced far, the placenta may be expelled in small portions for many months, but the patient is all the while languid, hysterical, and subject to irregularities of the menstrua, and very often to obstruction. But more frequently the symptoms are very acute. We have loss of appetite, prostration of strength, tumid or tender belly, frequent small pulse, hot skin, and various hysterical symptoms. The discharge from the vagina is abominably fetid, and hæmorrhage sometimes occurs to a violent degree.'

Mr. Ingleby's observations are to the same purport, and he relates a fatal case from the placenta being retained. (p. 118.)

Smellie gives a case from Mauriceau, vol. 2, p. 171, strongly proving the same point.

A woman miscarried at the fourth month, and the placenta was left entire. The midwife said the womb had closed, and she could not extract it. He saw her on the third day, and found her statement correct. He could not remove it. She was at the brink of the grave, from 'a prodigious flooding.' The placenta became putrid, and a most violent fever ensued, 'accompanied with exacerbations two or three times a day, and with faintings and other symptoms usual on such occasions.' The placenta was at length expelled, and the woman recovered.

Smellie mentions another example, which happened in the practice of one of his pupils. (Vol. 2, p. 167.)

The placenta was retained after an abortion at the fifth month. The patient was subject to constant draining for three months, until she became pale and emaciated. At this time he visited her. The os internum admitted two fingers, with which he was enabled to separate a hard round substance from its attachment to the uterus, but could not bring it away. He then used a blunt hook, and removed it in three portions. The discharge ceased, the woman recovered, and afterwards bore children.

The above cases clearly prove the great importance, and, in my humble opinion, the absolute necessity, of removing, in all possible cases, the whole of the uterine contents; and here I must especially urge the removal being accomplished as quickly as possible. It is a remarkable, but a well-established fact, that the uterus and its orifice become almost permanently contracted very shortly after even a partial expulsion of its contents. Cases No. 1 and 7 in this paper show the strong tendency to this contraction, but other cases prove it completely. Mauriceau mentions a person who miscarried at the sixth month; part of the after-birth remained, and before he arrived the os uteri was so closed he could not effect its removal. Dr. Dewees dwells particularly upon this fact. (P. 414.)

I feel it, however, a duty to state, that Dr. Denman, who appears to be the oracle of British accoucheurs, and in many respects most deservedly so, does not advocate the removal of the placenta when retained after abortion. His concluding remark is as follows. (4to. ed p. 490.)

'At all events, much less mischief may be expected from the retention of a putrid placenta at this time, than from attempts to force it away by the medicines usually given for that purpose, or by manual asssistance.'

I would simply beg to make this observation. I can find no argument to justify the use of 'force' in this case, but between the mischief arising from a judicious endeavour to remove a retained placenta, and that arising from a putrefying substance within the Uterus, an organ possessing sympathies so numerous and so important, I leave the reader to decide."

The cases themselves we are unable to insert, and they cannot be abbreviated.

CREPITATIO MUSCULORUM—A NEW, OR VERY RARE AFFECTION.

We have recently seen a very remarkable instance of this curious complaint. A lady of distinction and title, aged between 60 and 70, had enjoyed the most perfect health till within these few years. About that period she experienced some anomalous feelings about the head, indicative of fulness of the cerebral vessels, and these were accompanied and followed by certain vitiations of the senses of tasting and smelling. These symptoms she disregarded, her health being, in other respects, pretty good. Gradually, however, she began to perceive a weakness in the left lower extremity, with some uneasy sensations in the line of the sciatic nerve between the hip and the knee. This debility steadily increased, during the last twelve months, and she is now obliged to go on crutches. The muscles of the thigh, but not of the leg, are flabby and a little wasted. She can move the extremity in every direction; but has not the power of leaning in the slightest degree upon it. The most singular phenomenon, however, is this;—that, whenever she either bends or extends the knee, a crackling noise is distinctly heard, even at a considerable distance, along the course of the rectus femoris muscle, exactly resembling the cracking of fingers when stretched. The action of flexion and extension is accompanied by painful sensations in the rectus femoris, the two vasti, and the cruræus. When at rest, she feels no pain. Mr. Brodie and the senior Editor of this Journal examined the thigh with the greatest care. The ear was repeatedly applied along the muscles above-mentioned, and the crackling noise was loudly heard. As the ear approached the knee-joint, the noise diminished, and it was perfectly evident that the sound did not proceed from the joint, but from the muscles of the thigh. In the whole course of his experience, Mr. Brodie never met with but one case at all resembling this. It was a gentleman who complained to him of such strange and anomalous sensations about the right shoulder and side of the back, that he thought for some time the gentleman was hypochondriacal, and fancied a host of morbid and unintelligible feelings. In one of his visits the patient asked Mr. Brodie what could be the cause of the cracking noise in his back. Mr. Brodie had not been made acquainted previously with this symptom. But the patient soon convinced him of its reality; for, on moving the arm up and down, there was a cracking noise emitted from the muscles about the shoulder, and especially the latissimus dorsi, so loud that it could be plainly heard even in an adjoining room. Mr. B. examined with the ear, and clearly ascertained that the noise proceeded from the muscles, and not from the shoulder-joint. In this case there was no diminution of muscular power, but only painful sensations. The gentleman, in the course of some years, got rather better; but Mr. B. lost sight of him, and the final result is not known. In respect to the lady, various means had been used, and half a score of physicians and surgeons had been consulted, without the slightest benefit. She was finally recommended to go on a tour up the Rhine in August of the present year, more to divert her mind, and give a fillip to the general health, than with any prospect of recovery from the local complaint. She had heard so much of the "Bubbles of the Brunnens," that she was anxious to try their efficacy. They will probably burst and leave no mark of their power behind.

What is the nature or the cause of the phenomena above-mentioned? We believe it would puzzle a Philadelphia lawyer to solve the problem. For our own parts, we are completely *pozed*—and we shall not trouble our readers with any of the hypotheses we have formed to unriddle the mystery. The lady, who is very intelligent, says that she feels as if the muscles were dry, and snapped or cracked, with some pain, when she puts them in motion. By the way, can any one explain the cracking of the finger-joints when forcibly extended? It rarely happens that a joint can be made to crack more than once, however often the extension may be repeated at that time. Is it the for-

cible separation of articulating surfaces that were in perfect contiguity? All separations of such surfaces produce a noise. But why can it not be repeated till after a period of time? We shall keep an eye to the case above-mentioned, and communicate the result to our readers.

HYDATIDS OF THE KIDNEYS PASSED BY THE URETHRA.*

Elijah Jones, æt. 27, a comb-maker, of pale complexion and slender form, applied to Dr. DUNCAN on the 13th May. He brought with him several portions of a membranous-looking substance, having a pearly, semi-opaque, pulpy appearance, and which he said he had passed with his urine three days previously. He stated that he made water rather oftener than usual, and sometimes with difficulty; and that he had a constant shooting pain in the perinœum, which was increased after micturition. He had also occasionally a sense of 'weakness' in the right lumbar region. Urine of natural appearance; and functions natural.

On examining the substances above-mentioned, one was discovered of a globular shape, and about 1¼ inch in circumference,—evidently an Hydatid, of the genus Acephalocyst. It was filled with a transparent fluid, having floating in it another very small hydatid, which gravitated in the surrounding fluid. The remainder of the substances consisted of the coats of seven or eight hydatids which had burst, and which, when filled with water, varied in bulk from the size of a pea to that of a pigeon's egg.

He stated that, seven months ago, he got a "bad cold," and suffered from pain above the right hip, and in the perinœum; and that five months ago, a blister was applied, which removed the pain above the ilium, but that he still feels occasional uneasiness there. About a month ago, he passed several hydatids, which caused some obstruction to the flow of urine, but no more appeared until three days ago, although during the last month he has had constant pain in the perinœum, apparently near the neck of the bladder.

He was ordered to take *diluted Muriatic Acid*, 12 minims three times a day.

16th. Another hydatid has been passed (burst.) The pain is nearer the end of the penis.

24th and 25th. Two more hydatids passed, which obstructed the urine for some time. No pain in the perinœum now; it is generally felt six or seven hours before the hydatid is expelled.

June 3d. No more hydatids have appeared. Complains only of weakness in the back and hip.

The above case is interesting from the extreme rarity of its occurrence. Dr. Craigie says, "that the uterus is the only cavity, with mucous surface, in which inspection shews that hydatids have been found:" and there can be no doubt that, in this case, they were formed in the kidneys, and probably increased in size after their descent into the bladder.

The following account of the *post-mortem appearances* in one of the few instances of the kind on record, is taken from the *Philosophical Transactions* for 1687. Dr. Tyson, in stating what was observed in the bladder, says, "therein, upon Apertion, we discovered a very strange sort of Cystes or Bags, of the exact Figure of Eggs, of several dimensions, some larger than Goose Eggs, others as big as Hen Eggs, to the number of twelve in all; and about eight of them whole and replete with a limpid Serum; .... all of them loose and free, without the least adhæsion, either to one another or to the Coat of the Bladder .... nor could we imagine that this miserable patient could possibly make any Water but what happened upon the breach of some of these watery Tumours, when the Bladder was crouded beyond its dimensions..... The *Ureters* were of the largeness of the Small Gutts in Children, so that they could easily admit two fingers into their

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* Liverpool Medical Journal, July, 1834.

Cavity..... One of the *Vesiculæ* being opened, had a large cluster of small *Ova* as big as Grapes, all replete with Liquor. All the rest contained nothing but *Serum*." Two small ova were observed at the entrance of each Ureter, having descended from the kidneys.

OBSERVATIONS ON CATARRHAL AND CATARRHO-RHEUMATIC OPHTHALMIA. By FRED. TYRRELL, Esq.

In our quarterly contemporary for July last, there is a good practical paper on the above subject, from the pen of a good practical surgeon. Mr. Tyrrell remarks that, during the concluding part of last Winter, and up to July of the present year, catarrhal ophthalmia has been more prevalent than he ever knew it to be. The disease was often so severe as to affect the sclerotic as well as the conjunctiva. The following is Mr. Tyrrell's description of the—

CATARRHAL OPHTHALMIA.

"It commences with stiffness and heaviness about the palpebræ, with slight irritation or itching of the ciliary margins, and a sensation as if some fine particles of dust had lodged on the surface of the globe; there is usually slight intolerance of light, with increased secretion of tears and agglutination of the lids during sleep. After a short time the patient experiences pain, which is increased by motion of the eyelids, or by exposure to bright light. These symptoms are aggravated about sunset.

On examining the eye, there is perceived in the early stage slight thickening and redness at the free margins of the lids, and probably some coagulated secretion collected at the inner canthus and about the cilia. The ocular portion of the conjunctiva exhibits a few tortuous vessels filled with red blood, whilst the palpebral portion is red, tumid and villous, like crimson velvet; and in the lower folds between the ocular and palpebral parts of the membrane a little whitish or slightly yellow and thick mucous secretion is lodged.

The inflammation, however, soon spreads to the ocular conjunctiva, the vessels of which become extensively injected with red blood, and, on close inspection, are found to form a beautiful net-work. In severe cases, the conjunctiva is partially thickened and elevated by deposition of serum between it and the sclerotic, constituting a partial chemosis, and occasionally small spots of ecchymosis are perceived from the rupture of some minute vessels.

If the disease extends farther, it produces ulceration of the cornea.

This ophthalmic disease seldom exists without some symptoms of general catarrh, such as headach, sense of fulness about the frontal sinuses, sneezing, increased secretion from the nose, and some general febrile symptoms: the local and general diseases are usually reciprocal.

In young subjects the catarrhal-ophthalmia is often modified by a strumous diathesis, which occasions the local affection to be more severe, augments especially the intolerance of light and lachrymation, and disposes to the formation of pustules.

This disease may occur at any period of life. It is produced by a peculiar state of the atmosphere, during the continuance of which there is considerable difficulty in entirely removing the ophthalmia."*

The treatment must be modified by the severity of the symptoms, the extent of the constitutional disturbance, and the condition of the general power.

"When there is simply affection of the palpebral conjunctiva with morbid mucous secretion and little general disturbance, and sufficient constitutional power, I prescribe a brisk aperient of calomel and colocynth, or calomel and rhubarb, or jalap, and afterwards a small quantity of some of the preparations of mercury with antimony, or with Dover's powder at night, and a mild saline aperient in the morning, also mild diet, principally vegetable and fa-

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* MED. QUART. REV. No. IV. p. 416.

rinaceous, with quiet, and the avoidance of cold or damp, or of bright light.

Locally, I employ merely tepid water, to cleanse the eyes; or warm water to foment them when uneasy, and some simple ointment, which should be smeared upon the lids and eyelashes before the patient goes to sleep.

When the local disease is acute and the constitutional affection considerable, general or local bloodletting must be resorted to; the former being only necessary in persons of naturally full habit or subject to inflammatory diseases; and after bloodletting the treatment above described will be applicable.

In a few days the mild or acute form, if treated as I have described, passes into the chronic stage, which is denoted by a general mitigation of symptoms, but more especially by an alteration in the mucous secretion, which becomes thin and pale, and by the change in colour of the conjunctiva, which loses its brilliant aspect, and presents a more pale and lax appearance; at the same time it is found that the general power is failing under the continuance of the constitutional affection; the treatment must therefore be changed. Instead of exciting the secretions, they must now be kept as near as possible in their natural state, and a more generous diet must be allowed, but still the patient must abstain from such food as may tend to excite vascular action. It is necessary, in persons of feeble power, to give, in addition, some medicinal stimulus, as some of the preparations of bark, mineral acid, or ammonia.

To subdue the remains of the local disease, a slightly astringent lotion must be substituted for the tepid water, as a solution of the acetate of lead, half a grain, or a grain to the ounce; or a solution of alum, a grain or two grains to the ounce; the sulphate or acetate of zinc, a quarter or half a grain to the ounce, or nitrate of silver in the same proportion. Also a stimulating ointment must be applied instead of the milder form, as the dilute citron ointment composed of half a scruple or a scruple of the unguentum hydrargyri nitratis, to two drachms of unguentum cetacei, or a scruple of the unguentum hydrargyri nitrico-oxydi to a drachm of the unguentum cetacei."

"Where a strumous diathesis prevails, and where, as was observed, there is much intolerantio lucis, counter irritation by blisters is necessary. The intolerance exists both in the acute and chronic form, which renders it difficult to distinguish between them, though it is necessary to discriminate in the treatment. Mr. T. is convinced that more benefit results from repeated blisters, than from keeping one open. Cold applications are injurious to the eyes of strumous children. He uses tepid water in the acute stage, and trusts to general remedies in the chronic. We now proceed to the—

CATARRHO-RHEUMATIC OPHTHALMIA.

"This affection commences with symptoms similar to those of the catarrhal, but with more early suffering: for in addition to the symptoms of the catarrhal disease, the patient experiences a constant dull aching pain in the globe of the eye, and in the temple and eyebrow: the globe feels tense, and as if it had been bruised; and these pains and sensations become so much augmented towards evening as to prevent sleep. The accession of pain is accompanied with intolerance of light and a feeling of dryness of the conjunctival surface, so that the motions of the eyelid upon the eye produce excessive pain; but occasional gushes of tears occur, which for a few moments produce some relief; while the symptoms continue thus acute, the globe of the eye, the temple and eyebrow, are extremely tender to the touch.

In the intervals between the severe attacks, when there is but slight intolerance of light, vision is frequently indistinct, and occasionally small black spots or muscæ are perceived by the patient.

On superficial inspection of the eye, the appearances denoting catarrhal-ophthalmia of an acute kind are apparent; such as the red palpebral margin, the thick mucous secretion, the

thickened and villous state of the palpebral conjunctiva, with the tortuous vessels and vascular net-work on the ocular portion of the membrane; but an attentive examination soon discovers that the colour of the ocular conjunctiva is more uniform and deeper than in the simple catarrhal disease: and this upon further observation is found to depend upon the existence of another set of minute vessels filled with red blood, which can be traced in the intervals between the tortuous vessels of the conjunctiva as passing beneath them in a straight course from the margin of the cornea towards the orbit; these vessels are situated in the sclerotic coat; they are occasionally found more abundant in one part than another; as, for example, more upon the nasal than the temporal side of the cornea, and of course augmenting the depth of colour in such particular situations: it requires therefore a careful examination of the whole ocular surface to detect them.

When the vision is affected, being cloudy or troubled with muscæ, some change is perceptible in the iris; its pupillary aperture is contracted, its brilliancy is diminished, or its colour slightly altered; which circumstances are best detected by comparing the iris of the affected eye with that of the healthy organ: the motions of the affected iris also are sluggish. The iris suffers in consequence of inflammation extending to it from the sclerotic.

Sometimes a partial or complete ash-coloured line is seen between the cornea and vessels injected with red blood, most frequently the line forms a complete circle around the cornea; but I have seen it merely occupying a portion of the circumferance of the cornea, being apparent at its temporal and nasal margins, and deficient superiorly and inferiorly. This appearance is considered by the continental and also many of our own ophthalmic surgeons, as a diagnostic of rheumatic inflammation. Such opinion, however, I consider to be erroneous, for I have seen a similar line present in iritis, simple sclerotitis, and choroiditis. I believe it results from the mode of junction between the sclerotic and cornea, occurring when any of the diseases alluded to are present, and seen most distinctly when the junction of the two structures is very oblique, but not at all evident when the textures are joined with little or no obliquity. Now and then the margin of sclerotic overlaps or joins obliquely the circumference of the cornea, more in one part than another, and this I have observed most frequently on the temporal and nasal sides, so as to make the transverse diameter of the cornea less than the perpendicular diameter. When such formation exists and inflammation affecting the slerotic occurs, the ash-coloured line is apparent only towards the nose and temple."

The exciting causes are cold and moisture; and Mr. T. suspects that the simple catarrhal affection is often converted into the rheumatic, by the injudicious application of cold lotions.

TREATMENT.

When inflammation preponderates in the conjunctiva, and the slerotic is but slightly affected, leeches must be applied, and brisk purgatives given. For a few days, Mr. T. employs the same means as in the simple catarrhal affection, excepting that, when the circumorbitar pains are severe, he directs blisters, or a few grains of mercurial ointment, with opium, to be rubbed on the temple and forehead at night. As soon as the severity of the conjunctival affection has subsided, he prescribes a more nutricious diet, and small doses of cinchona and soda, sarsaparilla and lime-water, or some mild tonic with an alkali. Locally, warm water is occasionally used to cleanse the eye; "but the patient must carefully wipe it, and not allow the surface of the lids to remain moist, as I am confident it augments the mischief." The repetition of blisters is serviceable where there is much intolerantia lucis, or continual circumorbitar pains. When irritability, with little vascularity, remains, a drop or two of vinum opii once or twice in the 24 hours, dropped into the eye, is useful.

"If the catarrhal affection of the conjunctiva be slight, and the inflam-

mation of the sclerotic severe, without, however, much affection of the iris, local bloodletting is rarely necessary. The patient is at first to be freely purged by some drastic medicine, after which a full dose of colchicum, with a narcotic, may be given, especially when there is any marked rheumatic diathesis: the best period for administering this dose is in the evening, a short time before the usual period of exacerbation. I have known it to subdue altogether the sclerotic inflammation, leaving but a slight catarrhal ophthalmia. If the first dose appears to alleviate the disease, it may be repeated every six or eight hours for three or four times; but I have never found any benefit from a longer continuance of this remedy, nor have I seen much advantage from it when it has occasioned disturbance of the stomach or bowels. I consider its beneficial action very uncertain.

Otherwise, I prescribe according to the state of general power, which it is of the utmost importance to observe, in order to treat successfully. Very often, when the local disease appears acute, the general power is extremely feeble; or, on the contrary, when the local disease is slight, the constitutional power is good; but occasionally, the general action is energetic when the local disease is severe. When the action of the heart and arteries evinces deficient power, although the local symptoms and appearances may indicate an acute form of disease, any active depletion likely to affect the system ought not to be adopted; blistering is the best means of relieving the local congestion; besides which, medicines should be given to correct any error in the principal secretions, especially those of the bowels, skin, and kidneys: the two latter I find most frequently to be deranged. Antimonials with salines, are therefore most serviceable after the bowels have been acted upon. The patient must be allowed a good nutricious diet, and even a small quantity of stimulus, if much addicted previously to its use.

As soon as the secretions are in a healthy condition, tonics should be exhibited, and if the general power is good I prescribe five grains of the pulvis cinchonæ, and an equal quantity of the sodæ subcarbonas exsiccata every four or six hours; and I know of no remedy so generally serviceable in the state of the disease above described. I am indebted to Mr. Wardrop for the suggestion of this medicine. I have frequently known it succeed in relieving inflammation of the sclerotic, when the larger doses of the same preparation have been taken some time without benefit. Should this remedy fail, I give the sarsaparilla with lime water, but with either medicine it is necessary to administer an occasional purgative, with or without some mercurial, according to the state of the biliary secretions.

When the patient's power is feeble, I usually commence with the sulphate of quinine, as a tonic, in doses of three or four grains every four or six hours; and if there is a disposition to inordinate cutaneous secretion, I prescribe, in addition, twenty or thirty minims of the dilute sulphuric acid. Under these circumstances, also, a generous diet is requisite, and a moderate quantity of any stimulus to which the patient may have been accustomed. I have lately seen many cases in which the catarrho-rheumatic disease had continued (principally however of a rheumatic character) for six or seven weeks, or more; a depletory treatment having been persisted in, and in which a cure has been effected in as many days after the tonic plan has been adopted.

It sometimes happens that the disease has extended from the sclerotic to the iris before the patient applies for relief, or that the affection being treated under the supposition that it is merely a conjunctival inflammation, the remedies employed have not been sufficient to prevent the extension of the disease to the iris. Inflammation of the iris is indicated by a loss of brilliancy, an alteration in colour, a thickening of the pupillary margin, and a contracted and sometimes irregular condition of the pupillary aperture. When the iris is but slightly diseased, there is no occasion to deviate from the treatment which I have just described; but if the inflammation of this texture is decidedly developed, it is absolutely necessary to

resort to mercurial treatment to stop its progress, otherwise the plan of depletion which I direct in the early stage of catarrhal or simple catarrho-rheumatic ophthalmia, may not arrest the inflammatory action in time to prevent deposit of lymph in the texture of the iris and in its pupillary margin, by which the pupil may be rendered permanently irregular, or its margin become in part adherent to the anterior capsule of the lens, and the transparency of the capsule itself be materially injured.

The exhibition of mercury must be carefully and guardedly resorted to, especially when the constitution is feeble, which I have observed it most frequently to be in persons suffering from this disease; nevertheless I deem the use of the remedy of the greatest importance, if given in small doses, at short intervals, whilst the patient is allowed a nutricious diet, and the secretions kept in good order; the surgeon may, by keeping a careful watch, always stop the exhibition of the medicine in time to prevent any mischief.

At the same time that mercury is given, the extract of belladonna should be applied to the eyebrow night and morning, to keep the pupil in a dilated state, and prevent any adhesions taking place between the pupillary margin of the iris and the anterior capsule of the lens, with a contracted pupil; or to aid in the separation of such adhesions, should they have been formed previously.

The mercurial treatment must be stopped as soon as the inflammation of the iris subsides, whether the system be affected by the remedy or not. I have seldom had occasion to give mercury so as to produce any marked effect on the system in these cases, and have always found that when the remedy has by accident, or inattention, created much general disturbance, the cure of the remaining disease in the sclerotic has been more difficult. The disease in the iris being subdued, the plan I have recommended for relieving the inflammation of the sclerotic should be immediately adopted.

In several instances which have come under my observation during the last few months, although the general and local diseases have not been very severe, the patients have experienced excessive debility, and have not recovered until they have had the benefit of change of air for a short time.

I have been desirous to shew, in the preceding observations, that it is of much importance, by careful examination of the organ and attention to symptoms, to ascertain the extent of disease before treatment be commenced, and that the treatment must be varied according to the extent and severity of the inflammation; but especially to point out the existence of apparently severe local inflammation, with a feeble state of the constitution, which I have observed frequently during the late prevalence of these diseases; for I am satisfied that inattention to this circumstance has been the principal cause of want of success in the management of most of the cases which I have seen in consultation."

We have thus laid the whole substance of Mr. Tyrrell's paper before our readers, as it will prove serviceable to the practitioner in the daily rounds of his avocation.

RESEARCHES ON THE DIAGNOSIS AND PATHOLOGY OF ANEURISM. By Dr. W. STOKES.

[Dublin Journal, July, 1834.]

This is a long and valuable paper, and relates, of course, to internal aneurisms; it is, therefore, in the domains of the physician. We shall, in imitation of the author, proceed at once to the cases.

CASE 1. *Aneurism of the Hepatic Artery—Jaundice—Death.*

S. Mears, aged 35, of regular habits, but who had had an attack of apoplexy, was admitted into the Meath Hospital, 7th August, 1832, in a state of complete jaundice. Nine weeks previously he was attacked with copious hæmatemesis of five days duration. The yellowness commenced nine days before he entered the hospital. He had yellow vision,

with nausea, thirst, and some epigastric pain, with pulse 112, and the fæces and urine as in jaundice. The left lobe of the liver could be felt much enlarged, and also the right, whose edge stretched down to the umbilicus. Two inches to the right of the umbilicus was felt a soft pyriform and fluctuating tumor, considered to be the gall-bladder distended. In this state he continued for nine days, when he became covered with a miliary and afterwards a petechial eruption. In none of the examinations did they detect any pulsation in the tumor. On the 17th of August he was sitting up in bed, when he fainted, and suddenly expired.

Post-mortem Examination. On opening the abdomen a layer of recently coagulated blood covered the surface of the intestines. The liver was found to be small, and beneath its thin edge were seen two projecting tumors—one, the gall-bladder enormously distended —the other occupying the notch in the anterior edge of the liver, the size of an orange, roughly coated with cellular membrane, and without fluctuation. The liver had been pushed from behind forward by these tumors, giving it the enlarged appearance in the living body. The aorta was carefully examined, and found to have no communication with the tumor. A rigid investigation was then made by several medical gentlemen, and the tumor proved to be an aneurism of the hepatic artery covered by the capsule of Glisson, and so situated as to pass directly under the bile ducts. The opening of the vessel was a well-defined slit, and seemed to be the result of a perfectly local disease. The state of the biliary ducts throughout the liver, being enormously dilated up to the point of obstruction. The larger ducts would admit the point of a man's thumb. The dilatation continued to the peritoneal surface of the liver, forming numerous projections, varying from the size of a wallnut to that of a pin's head, apparently by the distention of their ultimate ramifications. They contained bile, which spirted out with force when they were opened. The substance of the liver was soft and friable. No disease in any part of the gastro-intestinal canal.

Dr. Stokes has made some ingenious observations on the above very curious case, especially as respects the diagnosis. We much doubt whether any of the phenomena recorded in this instance will enable us to ascertain an aneurism of the hepatic artery in the living body; but the case itself is important, as shewing how easily we may be deceived as to enlargements of the liver, by the existence of tumors in its vicinity. There is one observation in these remarks which struck us forcibly, and not without some sense of humiliation. "I feel little doubt (says Dr. Stokes) that the violent impulse of the heart in phthisis is, to a certain extent, produced by the circumstance, that the lung has lost much of its elasticity, and thus offers greater resistance to the motions of the heart." For the edification of the young pathologist, we candidly confess that we have many times pronounced disease of the heart, when, on dissection, the heart was sound, and the neighbouring lung was the seat of disease. It is more difficult to discriminate between increased action and increased structure in the central organ of the circulation, than most pathologists imagine. The longer we have lived, the more convinced are we of this difficulty; and scarcely a day passes without offering us examples where we are at a loss to say which of the two states is the cause of the phenomena presented to the senses by auscultation. Let this confession from a senior in observation, moderate the pride and increase the assiduity of the junior pathologist!

Case 2. *Aneurism of the Arteria Innominata.*

This was a shoemaker, admitted into the Meath Hospital, 29th Dec. 1833, being 34 years of age, stout and muscular. He complained of cough, dyspnœa, pain in the chest and head. Next night he was seized with hemiplegia of the left side. The symptoms abovementioned came on five weeks previously, after exposure to cold. On ex-

amination the chest sounded well over its whole extent, excepting at the sternal extremity of the right clavicle, where it sounded dull. The respiration was intensely puerile in the left lung—exceedingly feeble in the right, but without râle. On applying the stethoscope to the sternal extremity of the right clavicle, a very loud double pulsation was heard, with strong impulse, diminishing in intensity as the heart was approached, the sounds and impulse of which were natural. On pressing the fingers behind the clavicle, a small pulsating tumor could be felt in the direction of the arteria innominata. No *bruit de soufflet* could be detected in any part of the chest.

The symptoms were materially relieved by local bleeding, cold applications, purgatives, &c. but on the 5th January last, the symptoms became all aggravated, and he was attacked with diffuse cellular inflammation of the integuments of the neck, extending from the clavicle to the inferior maxilla. The swelling was soft and elastic, very tender, and with distinct crepitus. The face was livid and swollen, and the veins of the head and neck much gorged—the breathing was laborious, and there was loud tracheal râle. By various and judicious means the symptoms were alleviated from time to time; but he ultimately sunk on the 17th February, 1834, after the physical lesions had become multiplied and extensive. The tumor above the clavicle had attained the size of a hen's egg—dullness of sound extended over a great part of the anterior of the right side of the chest—pectoriloquism was decided in the tumor—and there was intense bronchitis in the left lung—breathing stridulous—voice often inaudible—headach, which was a constant symptom.

Dissection. Much fluid between the membranes of the brain, and an abscess in the right hemisphere, containing an ounce of matter. The right lung was collapsed, and reduced to a dark carnified mass. Strong adhesions, and much fluid between the pleuræ. The left lung was very voluminous, and its tubes filled with mucus. Two ounces of serum in the pericardium. The aorta was diseased, being somewhat dilated, and its coats thickened, the inner one being nodulated, and speckled with yellow spots. The aneurism was of the arteria innominata, the whole front of which artery was destroyed, and replaced by the wall of the sac. The posterior half was sound. The aneurism rose at first narrow, but gradually increased in bulk till it equalled a large cocoa-nut, the walls being of irregular thickness. It was filled with large fibrous and laminated coagula. By its pressure it had so flattened the right side of the trachea, that the free margins of the cartilages overlapped those of the opposite side, and almost annihilated the calibre of the tube. The right carotid and jugular vein, on the posterior surface of the sac were flattened and obliterated. The vagus nerve was also flattened, and its fibres were vascular. The right and left venæ innominatæ were flattened and completely obstructed.

Dr. Stokes gives an admirable exposition of the symptoms during life, as explained by the *post-mortem* examination. We regret that our limits prevent us from giving more than one passage which, however, conveys a very valuable hint to the pathologist, and especially to the zealous auscultator.

"Let us now consider the symptoms as connected with the chest. One of the most remarkable of these, was the difference of the intensity of respiration in the two lungs, the sound of percussion of which was every where clear, except in the immediate situation of the aneurism. This circumstance, arising from the compression of one bronchus, seems to me a most important one in the diagnosis of thoracic aneurisms, and one to which sufficient attention has not been paid. In the case to which I before alluded, published by Mr. Porter, this phenomenon was well marked, and was in truth the only unequivocal sign of any tumor existing in the chest; and there is at present a patient in the hospital labouring under many symptoms of aneurism of the aorta, though no external tumor is perceptible and who presents this sign

in a most remarkable manner. When we consider the difficulty that has hitherto been attendant on the diagnosis of thoracic aneurisms, *previous to the appearance of tumour*, any additional sign must be considered as of great value. I have no doubt that this one will in many cases prove highly valuable. The observation, too, may to a certain degree apply to the diagnosis between chronic laryngitis and the pressure of tumours external to the tube; for if, previous to the occurrence of the stridulous breathing, this difference of respiration has been observed in the lungs, a difference inexplicable by any result of percussion or auscultation of the respiratory murmur, it will give almost a certainty that the symptoms are not the result of original laryngeal or tracheal disease, but of gradually increasing pressure, first upon one bronchus, and afterwards on the trachea itself."

We fear that the diagnosis of thoracic aneurisms will ever remain obscure, on account of the various directions which the tumor may take, and the different sensibilities of the parts incommoded. The foregoing case, however, which we recommend in the original to every pathologist, exhibits a striking example of the accuracy of diagnosis by the stethoscope, in respect to the lungs, pleura, &c.

Case 3.—*Dilatation of the ascending Aorta—Death by Rupture.*

A man, aged 30, was admitted Jan. 18th, 1831. In the preceding September, he had had a fall on his right side, succeeded by pain in that situation. A month afterwards, he became affected with a sharp pain in the upper part of the *left* side, which continued for some weeks, when he perceived a pulsation between the cartilages of the second and third ribs, from which time the thoracic pain diminished. A flattish tumor was now felt extending from the second to below the third rib, presenting a double pulsation, closely resembling those produced by the action of an excised heart, and without any *bruit de soufflet or rape*. He had no dyspnœa in the erect position; but difficult breathing the moment he lay down. The stethoscope detected nothing unnatural in the heart or lungs. *Low diet*, *bleeding*, *digitalis*. He improved till the latter end of February, when he was attacked with severe pain in the chest, numbness of the left arm, and inability to lie on the right side. Some relief was obtained by local bleeding and by blistering; but he was unable to use the recumbent posture. The double pulsation could be plainly felt. A bleeding from the arm relieved the pain, and enabled him to lie down. He continued in this state till the 11th of April, when he suddenly expired.

On dissection, the ascending aorta was found to be greatly dilated, the dilatation commencing at the semilunar valves, and terminating at the origin of the innominata. The tumor adhered to the left side of the sternum, and to the cartilages of the second and third ribs. It was about the size of a goose-egg. It had ruptured into the pericardium, which was found distended with coagulated blood and serum. The heart itself was healthy, and the lungs crepitating.

Case 4.—*Aneurism of the Thoracic Aorta, without external Tumour, recognized during life.*

P. Walsh, aged 26, was admitted 23d July, 1832, complaining of cough and dyspnœa, to which he had been subject for nearly two years, but much aggravated within ten days. His neck was generally enlarged as if a tippet had been put round it; the jugular veins being turgid and tortuous. He had short cough, and mucous expectoration, with stinging pain in the right shoulder —pulse 100—impulse of the heart slightly increased, and its sound heard over a large portion of the chest. On the left side some *bruit de rape* accompanied the first sound of the chambers. The anterior portions of the chest were less sonorous than natural. In the right subclavicular region, the respiration was feeble, with a slight mucous râle—in the left lung, the respiration was puerile. "On laying one hand over the right scapula, and the other under the clavicle, a distant though distinct impulse

could be felt, apparently synchronous with that of the radial artery." The patient had some dysphagia.

Connecting the foregoing phenomena with the history of the case and the auscultic indications, Dr. S. came to the conclusion that, in all probability, there was aneurism of the arch of the aorta. He was treated by small bleedings, local and general, and was so much benefited that he left the hospital. Soon afterwards he got ill, and went into another hospital, where he died suddenly; and, on dissection, an aneurism of the arch of the aorta was discovered. It had burst into the pleura.

Dr. Stokes has appended some good remarks on the subject of internal aneurisms generally, and the signs by which they may sometimes be recognised, for which we must refer to the paper itself. Dr. Frazer has also communicated two or three cases of aneurism from his military experience, of which we shall not be able to give a satisfactory account, in consequence of our closing limits.

The first case was that of a British soldier, who came into hospital complaining of violent pain in his back, particularly along the spine, but without any morbid signs of local or constitutional illness. His health appeared good, and there was no emaciation. Some trifling remedies were prescribed, and it was suspected that he was feigning. He left the hospital, but again returned, and again the medical attendants were puzzled and suspicious.—They were not a little alarmed and mortified, however, on learning that the poor fellow dropped down dead, a few hours after he came into the hospital.

On examination, a large aneurism of the abdominal aorta was found ruptured, the bodies of the adjoining vertebræ being carious.

The second case was that of a gentleman, aged 30, who was attacked in the latter end of 1830, with derangement of bowels, followed by the feeling of a tumour in the left hypochondrium extending to the groin, with weakness and pain in the back. These symptoms increased, till at length a pulsating tumour appeared in the postero-inferior portion of the left side, which rapidly increased in size. As the case was considered to be aneurismal, Valsalva's system was adopted. His sufferings were increased so intolerably that he wished for death. On one occasion, in a fit of despair, he entered a tavern, ordered a sumptuous dinner, and drank a pint of wine, which was followed by a cessation of his distressing symptoms for several days. He always found that low living increased his sufferings. Dr. Frazer was unable to detect any tumor in the side. He became affected with atrocious colics—his legs swelled—and he died. On examination, a large fluctuating tumor was found extending from below the left scapula to the last rib. The left pleura was filled with coagulated blood, and its separated serum. This had compressed the lung, and displaced the heart to the right side of the chest. In the lower portion of the pleural cavity was perceived the ruptured aneurismal sac, of great size, displaying its concentric layers of coagulable lymph, hanging in irregular masses in the pleural cavity. Five of the vertebræ were deeply eroded. The left crus of the diaphragm was destroyed, and the muscle partly enveloped the tumor in the form of an arch. The heart was flabby, shrivelled, and of a livid hue. Near the bifurcation of the aorta was a well-defined oval perforation of the posterior surface, communicating with the sac.

We have now condensed the most important information contained in this long and interesting paper of Dr. Stokes, and beg to offer him our thanks for the benefit which we have received from its perusal.

A PRACTICAL TREATISE ON MEDICAL JURISPRUDENCE, &c. &c. By J. CHITTY, Esq. Barrister at Law. Part the First. Royal octavo, pp. 466. July, 1834. Price One Guinea, with Plates.

The Doctor is situated very differently from the Lawyer in a court of justice, and when a subject of medical jurispru-

dence is under investigation. The medical man is entirely passive—in fact, he is a witness brought forward to elucidate points of medicine (including all its branches of course) *alone* and without any reference to the law of the case. The lawyer, on the other hand, questions the witness on a subject with which he is not supposed to be conversant, and consequently the more he knows of medicine, the better qualified he is, not only to elicit truth, but to puzzle the doctor for the sake of his client. Thus, if a medical man was perfect in all branches of his science, and never read one word of law, he would give as good evidence as if he had all the legal knowledge of Blackstone, Coke, or Littleton. This shews how much more important it is for the counsellor to study physic, than for the physician to study law. Is the physician ever examined on the law of the case in any court? We never saw such an instance. To the medical reader Mr. Chitty's work may appear to have entered a great deal too far into medical matters, and, in fact, to form a *popular* digest of medical science, for which *they* have no occasion. But Mr. Chitty clearly saw that the medical part was wanted by non-professional and not medical people, as his title-page renders evident; for it states that the work is designed for "members of Parliament, lawyers, coroners, magistrates, officers in the army and navy, and private gentlemen." Not a word is said about medical practitioners among the anticipated readers; but he adds that the work *will* contain, "all the laws relating to medical practitioners." In his preface he distinctly informs us that the *fourth* part will contain the "laws relative to members of the medical profession in particular, viz. their qualifications, rights, privileges, duties, and liabilities, whether as physicians, surgeons, apothecaries, &c." Now as this fourth part will be included in the second volume, which will be published separately, it appears to us that he intends and expects that lawyers will be the chief purchasers of the first volume, (now under review,) and medical practitioners of the second. We would advise Mr. Chitty, therefore, to vary the amount of the editions according to this calculation. Mr. Chitty informs us that, in the *fifth* part of the work, that is, in the second volume, will be introduced the subject of *medical evidence*, and here he lets fall a sentiment which we have always advocated, namely, that the best way to study the law of *medical evidence*, is to study our own profession thoroughly. He does not agree with that amiable but enthusiastic writer, the late Dr. J. Gordon Smith, that "medical evidence" should be made a kind of distinct study, and that the individuals who are to give testimony in a court of justice, should agree previously, as to the tendency of their answers. "Lastly is given a view of *medical evidence*, and this rather to *limit* any direct professional education as regards the *manner* of giving evidence, and to suggest the higher importance of each individual, stating his *own genuine testimony*, rather than studying to agree with other practitioners."

Our author dwells with great reason and force of argument, on the necessity of a general knowledge of medical jurisprudence on the behalf of members of the Legislature, who are often called upon to enact laws relating to public health, nuisances, quarantine, &c. &c. He aptly asks, would members of the Legislature make the crime of procuring abortion depend on the period of quickening, if they knew any thing of the laws of fœtal life? Or would they be so ready to put quarantine in force, if they were better acquainted with the laws of epidemic diseases? The late choleraphobia, and the impotent attempts of legislators to arrest the current of epidemic constitutions of the atmosphere afford biting examples of the truth of Mr. Chitty's remarks.

That all persons acting in a judicial capacity, should have such a general knowledge of medicine, as to enable them to comprehend the import of the chief technical terms employed by medical men, is strongly insisted on by our author. He illustrates this in the following manner.

"Suppose a medical witness should swear that a blow or wound had been

given on the Clavicle (vulgarly called the Collar-bone,) or the Scapula (vulgo Shoulder-blade,) or in any other technically described part of the body, would it not be desirable that the Judge should instantly, without stopping to inquire, not only know the name of the part affected, but also be able to judge for himself what would be the probable consequences of the injury; for otherwise his mind would be occupied in seeking information merely on the import of terms, or in explanation of probable results, when he should be proceeding with more important considerations; and few minds are so powerful as to be able simultaneously efficiently to consider two different subjects."

Mr. Chitty quotes an observation from Professor Amos, which we hope will not be lost on judges and counsellors. That gentleman remarks that "even some judges as well as counsel are not unfrequently *very shallow men in science*, and therefore too apt to attack medical witnesses for using technical terms unknown to them—a just reflection, at least, upon counsel, that it is to be hoped will, ere long, be shewn to be no longer well-founded." This state of things, however, we can hardly expect, in our days. It cannot be expected that lawyers who have so much to study on their own account, should be very conversant with medical technicalities, and therefore it is the duty of the professional witness to avoid such terms as much as possible. We have lately had a lamentable instance of want of tact, and even of common sense, exhibited in the committee on medical education in the House of Commons. A physician, of no small calibre, and who entertains no mean opinion of himself, on being asked if the limits between physic and surgery were so well defined as to require a distinctly different education for each kind of practitioner, replied, in about one hour's dissertation on the anatomy of the eye—on the nature of iritis—on the modus operandi of mercury, and other matters which were about as relevant to the question put to him, as a treatise on electricity is to the manufacture of soap. During this exhibition the whole audience were laughing or grieving at the folly of the exhibitor, who construed the universal action of the risible muscles into rapturous plaudits for the immense knowledge which he was pouring forth to enlighten the world!! A more sickening specimen of anile imbecility was never seen upon earth; and it will form a blot on the records of the important investigation alluded to, which the FELLOWS of the College may very fairly throw in the teeth of the Licentiates, as a precious specimen of their order. It is impossible, indeed, to frequent our courts of justice, without daily witnessing the most lamentable examples of want of tact, and common judgment on the part of medical witnesses. This is remarked by the bar, the members of which speak in derision of the testimony of professional men. These hints will not, we hope, be lost on our brethren.

In respect to barristers, a general idea of medical matters is essential to their conducting many important causes at the Bar.

"With respect to *Barristers*, or at least all who practise at the Criminal Bar, or hold a brief in a life policy cause, or in an action against a surgeon for alledged misconduct, it is as much their professional duty as their interest to obtain a complete and perfect knowledge of every branch of these subjects so intimately interwoven with each other. How disastrous to his credit, and how painful to his feelings, would it be to hear it asserted, after the execution of a prisoner, that the conviction was attributable to his Counsel not having put, or having injudiciously put, a particular medical question, or generally proper questions connected with the subject; and yet such omission or blunder might have been probably attributable to mere ignorance of subjects which were not directly connected with the more ordinary and daily object of his *legal* study."*

" * In Mary Wright's case, convicted at the Spring Norwich Assizes, A. D. 1833, of murdering her husband, the counsel, Mr. J. Sidney Taylor, so ably

In advocating the propriety—as well as the possibility of a lawyer becoming generally acquainted with the principal points of medicine, and that without neglect of their own proper studies, Mr. Chitty quotes some observations from Dr. Adam Smith, respecting apprenticeships, which we hope will, ere long, be acted on by our legislature, as far as the medical profession is concerned. "Dr. A. Smith observes, there is no necessity for an apprenticeship of *seven years*, exclusively devoted to watch-making, or any other department; nor is there any occasion for the waste of *seven* years—and still more of *ten* years, upon the sole study of the dead languages. Much of the time ought to be occupied in the examination of other branches of science and literature, and which would infinitely more interest and improve the minds of youth, and enlarge their intellectual powers and attainments." These truths would be more useful than acceptable at Oxford, where so many of the best years of life are occupied with classical lore—or rather with acquiring the meaning of words, instead of cultivating those arts and sciences which prove useful through life. Cambridge, where mathematics are more favoured, does not fall so much under the scope of this censure as the Sister University. The following perhaps is modestly expressed.

"With respect to *Medical Practitioners*, although I cannot anticipate that my observations upon *Medical* subjects will be regarded as of any authority, yet as respects *Students* in Medicine or Surgery, I venture to hope that the analytical summary and condensed view of most of the present doctrines may be found useful; at all events, as regards the former, it is of the utmost importance that they should be fully informed of *the laws* respecting all injuries by violence, poison, or otherwise, to the person, and many other branches of the law, and which have been greatly, and in many respects entirely altered since the publication of the previous treatises upon Medical Jurisprudence. It is therefore hoped that the work may be found useful to *them*, as affording a view of the *law*, to which their attention and testimony is to give due effect; and the pages respecting the peculiar *laws* affecting the *Medical Profession* and its branches, may be found important even to their pecuniary interests and welfare."

"If this "analytical summary and condensed view" of the present doctrines have been drawn up by a lawyer, it is one of the cleverest compendiums we have ever seen. It is worth five dozen of the compendiums of Thomas, Reece, Graham, and other compilers of popular systems of medicine. We may here, also, take occasion to correct an error which has been promulgated by some of our contemporaries, namely, that this first part is only a fifth part of the whole. The other four parts are to be comprised in a volume equal in size to the present part, and thus the whole expense will be two guineas instead of five. We conclude, then, with a confident expression that this is the best compendium of medicine that has ever been drawn up for the benefit of non-medical readers.

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drew the attention of the learned Judge to the absurdity of executing a woman with child, though *not quick*, that he contributed towards saving her life; and after a jury of matrons had, upon her plea of *pregnancy* in delay of execution, *erroneously* found her not to be quick with child, she was delivered of a mature child at a time which clearly denoted that she must have been quick at the time of the trial, and the woman was finally transported instead of executed."

THE OTIC GANGLION.

In the Number of this Journal for April, we presented to our readers a short account of the difference of opinion existing amongst the anatomists of Germany, as to there being such a ganglion as that described by Arnold, under the name of the otic or auricular ganglion; and we concluded by observing that, in this country, Mr. Mayo

had recently acknowledged its existence. We were not then aware that, in doing so, we scarcely acted impartially, in omitting all mention of the share which Mr. Thurnam (at that time a pupil at the Westminster Hospital, and secretary to the Westminster Medical Society) had in its recognition. We are, therefore, inclined to lay before our readers a little sketch of the history of this ganglion.

The ganglion oticum, seu auriculare, called also ganglion Arnoldi by Professor Tiedemann, in honor of its discoverer, Dr. Frederick Arnold, of Heidelberg University, was described by that anatomist, in his work on "the Cephalic Portion of the Vegetative Nervous System in Man," which was published at Heidelberg and Leipsic in 1831. A translation from this work, of his description of its anatomical and physiological relations, by Mr. Tybe, of Devizes, will be found in the Edinburgh Medical and Surgical Journal for July, 1833. In the following August, Professor Mayo, in a paper entitled "Physiological Observations," published in the London Medical Gazette (vide No. 45,) stated that himself and Mr. Partridge had dissected for it in two subjects, and had been unable to discover it. He, therefore, concluded, that Arnold was mistaken as to the existence of any such ganglion, and stated his belief, that the nerves which he describes as peculiar to it, really belong to the third division of the fifth pair itself. Matters stood thus, when, as we find from the Medical Gazette for Dec. 21st, 1833, Mr. Thurnam commenced his dissections, and, having made out its existence in three instances, he announced this, as well as his mode of dissection, in the above Journal.

A month after this, Mr. Mayo, in the same Journal,* acknowledged its existence, and the correctness of Mr. Thurnam's method of dissection; and also announced the existence of filaments, not described by Arnold, which establish a connexion with the chorda tympani.

We have seen Mr. Thurnam's preparations of the ganglion, and have compared them with Arnold's figure, with which they appear accurately to correspond, except in the shape of the ganglion, which is not of so regularly ovoid a form as he has represented it, but more semilunar, as stated by Mr. Mayo.

The interesting nature of the anatomical relations of this ganglion to the organ of hearing, indicating a corresponding physiological relation, and such an one as the ophthalmic ganglion bears to the eye, as Arnold has so beautifully pointed out, induces us to consider it as an important discovery in the anatomy of the nervous system of "organic life."

AN ESSAY ON THE RELATION OF THE THEORY OF MORALS TO INSANITY. By T. MAYO, M.D. Octavo, pp. 49. 1834.

This subject borders a good deal on the metaphysical, and we apprehend that it will not excite much attention among the author's professional brethren.

Dr. Mayo appears to think that, speaking generally, there is placed within the mind of man a monitor, called CONSCIENCE—a sense of moral feeling—which tells him when he does wrong—but that there are some exceptions, where this same conscience either does not exist at all, or is overpowered by their vicious propensities, and kept in abeyance. But these rare exceptions he considers as only proving the general rule, and he triumphantly asks Dr. A. Smith (*without fear of an answer:*) "What is *that* in which *all* men sympathise, as obligatory on their moral conduct?" As Dr. A. Smith is not likely to hear the question, we will endeavour to answer for him. Our reply is—"NOTHING." There is *nothing* in which *all* men sympathise as obligatory on their moral conduct. If there was, the Chinese would not fling their offspring into the river without any qualm of conscience, while the Englishman acknowledges it a crime against God and

* January 18th, 1834.

man, and would swing for it at Newgate. If there was an innate, congenital, and universal monitor, or conscience, independent of education, the Hindoo would not hold it a crime to slaughter a cow on the banks of the Ganges, while the cockney looked upon it as no sin at all in Smithfield. Where is this innate monitor, when the Otaheitan slaughters and eats his enemy, at which the conscience of the Christian revolts? But why need we multiply examples. It is as clear as the sun at noon-day, that to the immortal soul is given an understanding, by which it learns good and evil according as it is taught. It has no innate power or conscience, by which it can discriminate good from evil, independent of education. If there was such a power, what need had we of revealed religion, to direct us to the one, and to guard us against the other? If there was an innate power or conscience, there could be no exceptions. Our author, however, thinks that there are such exceptions, and that the individuals thus excepted from the influence of conscience should be treated as insane. The following passage will illustrate Dr. Mayo's notions on this point.

"Mr. A. was born in a respectable station, and is in possession of a good fortune, of as much, at least, as he has allowed to remain out of a good fortune. He has a wife and children, and as many friends, or rather associates, as his convivial qualities retain for him, in spite of the hardness of his character. He has always been profusely extravagant; for his passions and appetites have compelled him to squander money, which he would probably have hoarded, if his selfishness had taken that turn. His temper is at once stern and violent; and all who know him expect that the dispositions of his will must prove him, to the last moment of his life, utterly unjust. If he had sufficient courage he would rob or murder; for his cupidity is under no moral check; but he is naturally very timid, and owes to this circumstance his freedom from such acts as the law construes into crimes. Such is Mr. A., and such also, or as nearly such, as the distinctive points which separate all individuals will allow, is Mr. G. his neighbour. But there happens to exist a peculiarity in the latter, which materially alters the course of his life, and its results upon others. Mr. G. was observed to talk very much to himself. This excited attention; and, on further inquiry, it was discovered that he was habitually under the influence of false perceptions, and that he considered himself solicited by certain voices, audible only to himself, to perform those actions which indeed flowed naturally enough from his own evil dispositions. Mr. G. was accordingly recognized as a lunatic, and placed under restraint. Thus the family of Mr. G. is secured against the results of his moral character; and his fortune will descend according to the principles of law; thus dealing out a justice to others, and a protection to *him*, which would have been refused, but for this hallucination."

We certainly think it would be very desirable, if every man who is in the habit of injuring his family, or even himself, by his vices, his follies, or his extravagances could be checked; but then, to decide such knotty points of moral conduct, and to measure with exactness the length and breadth of a man's *conscience*, we must have a jury of moral philosophers and metaphysicians, with Dr. Mayo as the foreman—for we are quite sure that no common or special jury would be able to decide such questions.

Dr. M. proceeds to inquire into the analogy which this "moral insanity" bears to the commonly recognized, or "intellectual insanity." The following passage embodies this analogy, and also gives us a definition of insanity—a thing very much needed in the present state of our knowledge.

"Both perception and reflection in the insane intellect are governed by laws absolutely different from those which are recognized by the common perceptions of mankind. This, however, happens also to persons whom it would be absurd to call insane, or even eccentric. Thus a person under an excited state of mind, or in ill health, sees visions and hears voices equally

foreign to the common perceptions of mankind with those of the lunatic. The difference between the insane and all others who have similarly erroneous perceptions, is, that the latter are possessed of a power by which they can question the justness of their own perceptions, the insane have no such power; for when they begin to make use of such a power, they are so far convalescent. But as the erroneous notions which the insane intellect forms respecting the objects of sight cannot be referred by it by any test of their soundness, as possessed by it in common with the rest of mankind; so the conduct suggested by the inclinations and tendencies of the *vicious* in the sense in which we are now estimating vice, cannot receive any modification from a reference to a moral sense or common feeling of approbation. The analogy may be pursued further: for persons thus destitute of the moral sense may, from the very absence of a conflicting principle such as it would supply, move much more smoothly through their course of wickedness, than criminals of an opposite kind, namely, those who do wrong, 'having a law in themselves, their consciences bearing witness, and their thoughts accusing them;' and so also the progress through life of persons intellectually insane, is often very quiet and regular, far more so, at least than that of many persons justly considered sane, but exposed, from the very struggles of their reason with antagonist principles of the intellect, to constant uncertainties and doubts, which the insane are exempt from. Many a person, indeed,

'Cui sic absumpta voluptas
Et demtus per vim mentis gratissimus error,'

may envy the contented and self-satisfied lunatic.

Without supposing myself to have exhausted the points of analogy between these states of moral and intellectual deficiency, enough has, I think, been adduced to warrant our assuming, that the absence of the moral sense constitutes a form of unsoundness, analogous to that intellectual unsoundness, which is commonly understood when the term insanity is used; and, accordingly, that we may talk of a moral and of an intellectual insanity as contradistinguished species."

Dr. Mayo asks, is it not probable that the same treatment may be applicable to the moral depravity as to the mental derangement? We think that, as far as *prevention* goes (which is said to be better than cure), a cell in a madhouse would very effectually prevent the commission of crimes—and especially the extravagance of spendthrifts; but if this kind of moral insanity were to come under the law, where, in God's name, would we find prisons? Well may Dr. Mayo say, "that the difficulty of finding that point, beyond which *vice* may be considered as the subject of coercion on the ground of unsoundness, will necessarily be great." A little farther on our author remarks—"the above considerations may appear to many persons absolutely erroneous: others may think them theoretically correct, but impracticable." We acknowledge that we are among the latter. For, even if the suggestion of Dr. Mayo, that common juries should be superseded by scientific, were put in practice, we are quite confident that twelve doctors would not be brought to agree upon any one case of moral delinquency, unless there were symptoms of common or intellectual insanity present. Dr. Mayo is an excellent physician, and, we have no doubt, a very clever and subtle metaphysician; but we suspect that, like an illustrious statesman and philosopher of this country, he is—

"Too fond of the right to pursue the expedient,"

and perhaps addicted, like the same personage, to—"cut blocks with a razor."

CLIMATE OF THE LANDS END.

From a very able and elaborate paper on the medical topography of the hundred of Penwith, district of the Landsend, by Dr. Forbes, of Chichester, and published in the transactions of the Provincial Medical Association, we ex-

tract a passage or two respecting the climate of Cornwall.

The whole district, in question, possesses, as far as regards climate, all the advantages and disadvantages of a small island, moderately elevated above the level of the sea, and placed at a distance of forty or fifty miles to the westward of the most southerly point of the mainland. In stating the various meteorological results, Dr. Forbes places, in most instances, the climate of London in opposition, that locality being best known, and affording a fair specimen of the mean climate of the southern part of England.

"1.—*Annual Mean Temperature.*

Landsend (Penzance)	51.8°
London	50.3°

2.—*Mean Temperature of the Seasons.**

	Winter.	*Spring.*	*Summer.*	*Autumn.*
Landsend	44°	49.6°	60.2°	53.3°
London	39.1°	48.7°	62.3°	51.3°

3.—*Mean Temperature of the Months.*

	Jan.	*Feb.*	*Mar.*	*Apr.*	*May.*	*June.*	*July.*	*Aug.*	*Sep.*	*Oct.*	*Nov.*	*Dec.*
Landsend	42.5	43.5	46.4	48.5	54.0	58.5	61.2	60.9	57.6	53.7	48.8	46.1
London	37.3	40.4	42.6	48.0	55.6	60.0	63.4	63.5	58.8	51.7	43.4	39.5

4.—*Difference of the Mean Temperature of Winter and Summer.*

Landsend	16.2°
London	23.2

5.—*Difference of the Mean Temperature of the warmest and coldest months.*

Landsend	18.7
London	26.2

6.—*Difference of the Mean Temperature of Successive Seasons.*

	Of Winter & Spring.	*Of Spr. & Sum.*	*Of Sum. & Aut.*	*Of Aut. & Winter.*
Landsend	5.6°	10.6°	6.9°	9.3°
London	9.6°	13.5°	11.0°	12.2°

7.—*Difference of the Mean Temperature of successive Months.*

	Jan. & Feb.	*Feb. & Mar.*	*Mar. & Apr.*	*Apr. & May.*	*May. & June.*	*June. & July.*	*July. & Aug.*	*Aug. & Sep.*	*Sep. & Oct.*	*Oct. & Nov.*	*Nov. & Dec.*	*Dec. & Jan.*	*Mean*
Landsend	1.0	2.9	2.1	5.5	4.5	2.7	0.3	3.3	3.9	4.9	2.7	3.6	3.1
London	3.3	2.2	5.3	7.6	4.3	3.4	0.1	4.7	7.0	8.3	3.8	2.2	4.3

8.—*Absolute Range of the Thermometer.*

	Highest Extreme.	*Lowest Extreme.*	*Greatest Range.*
Landsend, (12 years,)	84°	19°	65°
London, (30 years,)	96°	5°	91°

9.—*Mean Range of the Thermometer.*

	Annual Range.	*Monthly Range.*	*Daily Range.*
Landsend	49°	24°	6.7°
London	64°	34°	11,8°

* The more common divisions of the seasons is here adopted, *winter* comprehending Dec. Jan. Feb. and so on.

10.—*Variation of Temperature of successive Days for the whole Year.*

	Mean Variation.	*Extreme Variation.*
Landsend.....	2.6°	10°
London.....	4°	18°

The preceding results place, in a striking point of view, the great peculiarity of the climate of this district, as to temperature: it possesses, as has been already remarked, all the habitudes of a small island remote from any large continent: it exhibits, in a great measure, the qualities of what may be called the *ocean climate*. This is characterised essentially by a remarkable degree of *equability* of temperature or small extent of range above or below the mean. In this respect the district of the Landsend is superior to any other part of England, and, indeed, to any place in Europe of which we possess meteorological accounts Madeira is the only climate which Dr. Clark considers as superior in regard to equability of temperature.*

As necessary consequences of the greater equability, it will be seen by the preceding statements that, although there is a difference of only 1½° between the mean annual temperature of this district and that of London, there is a remarkable discrepancy between the different seasons at the two places. Thus it is seen that while the summer temperature of the district is rather more than 2° *lower* than that of London, the winter temperature is very nearly 5° *higher*. The spring temperature of both places differs less than one degree, and that of autumn is 2° in favour of the Landsend. It thus appears that while the winter is much *warmer* than that of London, the summer is considerably *cooler;* the autumn is as much warmer as the summer is cooler, while the spring is nearly equal at both places. The temperature of the whole spring at Penzance, as taken by the thermometer, is, indeed, rather higher than that of London; still it will be observed, on referring to the tables, that this superiority is derived almost entirely from the month of March, the temperature of April being very nearly the same in both places, while that of May is more than a degree and a half *lower* at the Landsend.

The singularly small range of the thermometer in this district, gives rise to a remarkable difference in the relation of the temperature of the day and night, here and in some inland places; in summer the nights being as much warmer as the days are cooler, and in the winter both the nights and days being warmer. This will appear in a striking manner by comparing together the mean of the extremes, i. e. of the highest and lowest degrees of temperature as shown by the register thermometer during the two seasons, at London and Penzance.

	Summer.		*Winter.*	
	Day.	Night.	Day.	Night
London.....	81°	42°	52°	23°
Penzance.....	72°	49°	55°	31°
London higher...	9°	—	—	—
Penzance higher.	—	7°	3°	7°."

It appears that, for equability of temperature, there is no place in England equal to the Landsend, excepting, perhaps, the neighbouring isles of Scilly. But it must be remembered that temperature alone is not the grand point of medical topography. The moisture of the climate must be taken into consideration—and even the *gloominess*, as acting on the spirits and health. We apprehend that Penzance, so much lauded a few years ago, will not continue a favourite residence for pulmonary invalids, on account of the fogs and rains, the dreary shores, and the treeless hills of Cornwall. The cheerfulness of Hastings or the Isle of Wight, is no trifling advantage, where the mind is borne down by the infirmities of the body.

* Influence of Climate, p. 63.

MR. SANDWITH ON THE NATURE AND TREATMENT OF WHOOPING-COUGH.

In a late Number of Dr. Hunter Lane's Monthly Archives, there is a paper of much research and practical discrimination on the above subject, from the pen of Mr. Sandwith, of Bridlington, who witnessed an epidemic, in the year 1830, of whooping-cough. In the majority of cases that presented themselves to Mr. S. there were evidences of acute or subacute inflammation. In the latter cases, the disease was greatly moderated by leeches to the region of thyroid cartilage, as recommended by Dr. Dawson. When the head was affected, the leeches were best applied between the shoulder-blades, with calomel, pulv. Jacobi, and the usual adjuvants. "Several examples of the disease, however, in its more exquisite forms, demanded more energetic means to subdue the inflammation. In some of these cases, the child lay constantly struggling under the aggravated dyspnœa of acute bronchitis, that "permanent difficulty of breathing, which continues between the coughing fits," as described by Darwin. As might be expected, there was considerable mortality where professional aid had not been sought.

In these cases, it was necessary to combine local and general bleeding with emetics, the warm bath, calomel purgatives, and blisters. The strong tendency to cerebral congestion deterred from the use of opium, in the form of Dover's powder, to any extent. The following case affords a striking example of metastasis from the mucous membranes of the brain.

"Master S. aged 4, became affected by whooping-cough in May. The attack was severe, but without producing acute symptoms of bronchitis; emetics, purgatives, and the prussic acid made no decided impression on the complaint. After exposure to cold, in the latter end of June, his cough suddenly left him; and general lassitude, loss of appetite, and increased feverishness supervened. The fever, with symptoms of cerebral irritation, increased from the 24th to the 30th, when actual phrenitis demanded more active treatment than the less violent anti-inflammatory remedies hitherto used. About a teacupful of blood was taken from the arm on that day, and seconded by leeches and free purgation. The general bleeding was repeated on the first of July, and leeches to the temples and the sides of the neck were afterwards several times freely employed. Sleeplessness, and that delirious anguish which mark cerebral inflammation in children, were prominent and distressing features during the severity of the attack; there was also, for a day or two, rigidity of the spinal muscles, and a peculiar drooping of the head to the left side, with a semi-rotatory motion. The symptoms of cerebral irritation, though moderated by active treatment, did not wholly decline before a fortnight had elapsed from the time of the first general bleeding. The emaciation was equal to what we observe in the most protracted cases of fever. The first clear proof of the entire removal of cerebral irritation was a return of the cough, with its distinctive whoop,* which continued in a mild form during the whole period of convalescence. Natural and refreshing sleep, at first excessively profound succeeded to the long-continued scenes of excitement. A change of air finally removed the cough, and asses' milk repaired the wastes of the system. The case just described illustrates the truth of Dr. Palmer's remark relative to the complications of whooping-cough, that they 'will demand, with great vigilance and energy, a variation of practice precisely corresponding with such change."

THE MORBUS ORYZEUS.

Our readers are aware with what un-

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* "An interesting case of whooping-cough alternating with measles, and re-appearing on the decline of the latter, is related by Dr. Ferriar.—*Vide Medical Histories and Reflections*, vol. iii. p. 217.

shaken constancy Dr. Tytler has cleaved to the doctrine, of the epidemic cholera arising from the use of damaged rice. Through good and through bad report, in spite of argument, and in defiance of fact, the Doctor has hugged his bags of rice; and, holding them up to the attention of the world and of the Medical Society, he has endeavoured to seal, with philanthropic fury, the lid of this new Pandora's box. These degenerate times can scarcely afford one other specimen of such single-minded, and, indeed, single-handed, advocacy of a cause, which is derided by the ignorant million.

Towards the latter end of this month of July, 1834, the profession became aware, and the newspapers informed the public, that some fatal cases of cholera had occurred, while others of extreme severity were daily occurring. Then was the good Doctor up and stirring, and, like that honest animal whom the Lake Poet has described as sagaciously "turning his left ear round on the pivot of his skull," our watchful hero listened for the approach of the dreaded rice. That he heard it coming we will not say—but that he saw it will speedily be shewn.

Great minds are always in advance of their century. They pursue untrodden tracks, and detect the most important and extraordinary truths amidst rubbish neglected by vulgar observation. It is a trite remark, that while Sir Isaac Newton discovered the laws of gravitation, from watching the fall of an apple on the ground, the majority of men would have picked it up and eat it. Dr. Tytler is one of those commanding intellects that disdain the processes of ordinary reason. When he found that the cholera was coming, or come, he did not pursue its cause in the air, or in the water—in the heat or in the cold—in the diet or in the clothing—in contagion, or in epidemic influence—he found it in the *London Price Current of June*. His well-trained nose scented out the commercial iniquity which had sacrificed, and, but for Dr. Tytler, would continue to sacrifice its victims. Full of this great discovery, he immediately communicated it to the Lancet, in which it was greeted with a cordial grasp. That Journal observed, on the interesting occasion, that "the question is one of prodigious importance to the community, and that Dr. Tytler is indebted to its gratitude for the zeal and ability he has displayed in introducing the subject to general notice."

We must now let Dr. Tytler speak for himself, and lay before our readers the *London Price Current*, in its native and beastly wickedness.

"Should it unhappily prove eventually," says Dr. Tytler, "to be the fact that *Asiatic Cholera* or *Morbus Oryzeus*, has re-appeared *in this City*, or in any other part of Great Britain and Ireland, the following extract from the *London Price Current* of June 3d, 1834, will satisfactorily explain the cause of this unfortunate circumstance, and abundantly prove that until vigorous measures be adopted to expel *poisonous rice* from the markets of England, the health of the community cannot be considered as secure from this terrible scourge and destroyer of the human race.

'RICE.—Large parcels of rice continue to be offered at public sale, which enables the buyers to purchase BY PRIVATE CONTRACT AT VERY LOW PRICES; Patna kind has been sold 12*s*. 6*d*. to 13*s*.; ordinary white Bengal at 10*s*. 6*d*. By public sale this day, 2970 Bags Rice; a part sold rather higher; the usual buyers are now attracted to Rice, *on account of the reported short Corn Crops*.'—From the *London New Price Current* of Tuesday, June 3d, 1834."

We cannot contemplate this cold-blooded traffic in pestilence without a shudder. What punishment can be too great for the miscreants who can deliberately barter in "Patna kind," and can coolly sell "ordinary white Bengal at 10*s*. 6*d*." We appeal to the Legislature, to deal with this new and monstrous guilt as it deserves; and should the people's representatives be callous to our prayer, we adjure the people to take vengeance on the criminals, and hurl the rice-contractors and their rice-bags into the Atlantic. For Dr. Tytler, money were an inadequate reward. He will live in the gratitude

of his Country, and the Poet Laureate may be invited to immortalize him in a mighty Oryzean Hymn, commencing, perhaps, with—

Risum teneatis amici.

PERFORATION OF STRICTURES.

Mr. Stafford has offered some desultory observations and published twenty-one circumstantial cases, to prove the necessity, the propriety, and the success of perforating strictures of the urethra.

When we take into account the numerous circumstances which impair the judgment, even when they do not affect the honour of those whose practice is novel or peculiar, we must cease to entertain surprise at the scepticism extended to the facts which such reasoners adduce. The amount of that scepticism may possibly be unjust, yet they who are most familiar with the history and indeed with the practice of medicine, are usually found to entertain it most freely. The rise and fall of doctrines and of methods are too rapidly displayed to allow it to subside.

The preceding observations are, perhaps, inapplicable to the instance of Mr. Stafford. His honour cannot be questioned, his judgment may not be impugned. Yet some objections to his cases and his practice present themselves, and his obvious inclination to pursue and to elicit truth, will probably induce him to regard them with attention, if not with favour. Mr. Stafford's activity and zeal have been proved by his several contributions to literature and science. He has printed and published a copious pamphlet, on the application of wax to ulcers; and although the former has been little read, and the latter has scarcely been found to succeed, the labour of the composition and the ingenuity of the proposal continue undiminished. He has also published a lengthened work on Diseases of the Spine, the merit of which has been thought by some to be overbalanced by its bulk. But Mr. Stafford's perforation of strictures has attracted and received the attention of the public, to an extent much greater than his other attempts to improve the science and details of surgery.

We have stated that Mr. Stafford has published the particulars of twenty-one cases in which he divided urethral strictures by means of the lancetted stilette. The experienced surgeon involuntarily starts, and inquires how Mr. Stafford could have seen so many instances, in which it was impossible to introduce a bougie or catheter, and to carry it through the strictured part. The cases, in public and in private practice, in which this impossibility is experienced by those possessed of moderate dexterity, and acquainted with the best modes of treating stricture, are so few, so very few, that surprise at the good or evil fortune of Mr. Stafford is necessarily great. We lately heard Mr. Brodie declare, that for many years he has been foiled but once in getting an instrument of some description through the stricture. Perhaps other surgeons have not been so fortunate, yet we feel convinced that all will be astonished at the numerous array of impassible strictures displayed by Mr. Stafford. In our own experience, we have generally found that the number of unsuccessful cases afforded a tolerably just criterion of what was *not* the adroitness of the surgeon. On many occasions, patients present themselves to the house surgeon or the surgeon of a hospital, declaring that they labour under strictures, for which no instrument could be passed by the various medical men who have attended them. Yet in the vast majority of such cases, instruments are introduced at the institutions to which the individuals apply. Did the record of these cases attest or confirm the superior efficacy of a particular method, it would probably be easy to adduce as long and as imposing a list on the side of dilatation as Mr. Stafford has advanced in favour of division.

It may be stated as a general maxim in surgery, that of two kinds of practice equally efficient, the mildest, that is, the least painful and least dangerous, should always be preferred. Mr. Stafford asserts that he has never known

mischief arise from the operation of division, and that "the pain has been but trifling, not more, nor even in some cases so much as the puncture made in bleeding." This is an encouraging picture it is true, but the surgeon who has witnessed the pain occasionally caused by the gentlest use of the bougie, must hesitate to place implicit faith in the declaration, that the employment of a cutting instrument is attended with so small an amount of suffering.* Some allowance must, perhaps, be made for the natural fondness for our offspring, exhibited in the scientific world, as well as in the animal, a fondness which might have influenced, and may reasonably excuse the apparent partialities of Mr. Stafford. Those partialities are great and generous. He affirms, for example, that "no false passages have been made" by division. It might be difficult, on physical principles, to demonstrate, that an instrument like a lancetted stilette, which cannot from its constitution be guided with even so much precision as a bougie, and which must necessarily penetrate through all opposed to it; it might be difficult, we say, to demonstrate that such an instrument would not be likely to occasion a false passage. Yet this instance exhibits the superiority of experience to the efforts of reasoning. Whatever might have been anticipated, Mr. Stafford assures us that no false passage has been made; and that declaration must quiet the captious or presumptuous disputant. The happy picture displays no contrast of light and shade—it is sunny and clear as an Italian sky. Mr. Stafford thus closes his paper in our contemporary; the passage being perhaps more decisive of his good fortune, than characteristic of his attention to grammatical construction.

"Nor indeed has there *been* in any instance a single unfavorable symptom *occur*.† The treatment has been always attended with success, and the patients, from having been in the most deplorable and painful state of disease, being emaciated and worn out by their long and continued sufferings, have in a short period been so relieved that they have gained flesh, and have become healthy and strong."

This flattering picture might almost appear to silence objection, yet we candidly confess that it would not induce us to resort to division, until we had practically satisfied *ourselves* of the impossibility of passing a catgut or a wax bougie, or catheter. We cannot avoid entertaining the suspicion that in some of the cases detailed by Mr. Stafford, such a proceeding, if conducted with caution and adroitness, would, perhaps, have been attended with success. The unnecessary employment of violence or of the knife is always to be deprecated, because it creates, or, at all events, increases the natural prejudice against surgical operations, and may tend to prevent some persons from submitting to them, whose cases require and whose lives might be preserved by them. We are disposed to believe that the division of strictures is too much praised and too much practised by Mr. Stafford.

Yet that gentleman, not content with his triumph over the urethra, has carried his views of conquest to the rectum. In the number of the Medical Gazette for July 26, of the present year, Mr. Stafford inserts a description and a drawing of some instruments invented or employed for the purpose of dividing what he terms an *elastic stricture*. This is a stricture of the permanent kind, which will admit through it a bougie, but which immediately on its withdrawal, will retract to its former calibre.

"These instruments resemble in their structure the lancetted stilettes, excepting that, instead of a lancet being thrust out at the point, a semilunar blade comes out at the extremity on the side, above, below, or laterally, as may be

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* We lately witnessed an attempt to divide a stricture with a lancetted stilette. The patient writhed and shouted with the pain.

† It would not be easy to decide in what classic work or in what society this species of construction may be met with.—*Rev.*

required, and as represented in the engraving. The mode of using them is to pass them through the stricture, and then throw out the blade, and draw the instrument back again through the contracted part until it is divided, when the blade is allowed to retire into its sheath."

An instrument of this description is applicable, according to the account of Mr. Stafford, to division or slitting of an enlarged middle lobe of the prostate gland—to the division of stricture of the œsophagus—and to that of stricture of the rectum.

Mr. Stafford relates at some length, a case of stricture of the rectum in which he performed division of the stricture. The stricture is said to have been situated at the distance of two inches and a half from the anus; it appeared to be indurated, and would allow a No. 12 urethra bougie to pass through it. On the 25th of February Mr. Stafford divided the stricture opposite the sacrum with an instrument such as has been mentioned. Tenderness of the abdomen appeared next day, and continued at intervals till the 8th of March. From that time till the 20th she did pretty well, but on the latter day she was attacked with erysipelas of the head and face, of which she died upon the 25th. We should state that, previous to her death, "a large bougie" could be passed with ease and with little pain.

Mr. Stafford's account of the dissection is imperfect. He describes the condition of the brain and of its membranes—a tuberculated liver—traces of peritonitis—cicatrized ulcers of the mucous membrane of the small and of the large intestines—ulcerations, not cicatrized, in the sigmoid flexure of the latter. But where some prolixity might be excused—in the details of the nature of the stricture—curiosity is baffled by a meagre memorandum. "The gut at the strictured part," says Mr. Stafford, "would admit through it a bougie as large as the thumb. The cicatrix of the wound was very perceptible, and it was covered by a membrane analogous to that lining the intestine."

We may be wrong, and Mr. Stafford may be right, but we do conceive that cases so related are of little essential benefit to science, whatever they may be calculated to confer on the narrator. Mr. Stafford may suppose that had the patient not died accidentally of erysipelas, she would probably have recovered, but we do not perceive as he appears to do, that the dissection absolutely proves this probability. To enable the reader to form an opinion, he should be made acquainted with the nature of the stricture. The pathologist perhaps will be tempted to smile at the sanguine therapeutics of our author. He (the author) attributes the cicatrization of the ulcers of the mucous membrane of the colon to his operation on the rectum, and concludes that all would have healed from the same influence. The reader of the case will perceive that symptoms of abdominal inflammation immediately followed the division of the stricture, and continued for ten or twelve days after its performance. Their cessation is converted, by the sanguine pathology of Mr. Stafford, into a proof that the ulceration of the bowels would have healed. "That such an inference (the ultimate healing of all the ulcerations) may be drawn is further proved by the pain and tenderness in the abdomen having ceased; shewing that the inflammation had diminished, and all the other symptoms abated." Most candid reasoners would probably attribute those inflammatory symptoms to the performance of the operation.

We would not be deemed hypercritical, nor would we be willingly accused, with justice, of endeavouring to pull down the merit of any man. But we really think that Mr. Stafford is inclined to carry his love and his advocacy of division of strictures too far, and admitting, as we do, the occasional utility and even the necessity of such an operation, we feel disposed to warn the inexperienced part of the profession against its too general and indiscriminate employment.

Dr. A. T. THOMSON ON IODURET AND HYDRIODATE OF IRON.

To theorize and speculate is a characteristic of talent and genius. Dr. Thomson has long distinguished himself by his practical observations in general, but especially by his labours in chemistry and pharmacy. The following extract will, we think, illustrate the remark with which we commenced this short article.

"In reflecting upon the solubility of the Ioduret of Iron; and the striking difference, in this respect, between that compound and its components;* and, knowing the value of these separately, as medicinal agents, I inferred that the curative influence of both might be greatly enhanced by the facility which the compound affords of introducing them into the system, in the state of combination. Another consideration which led me to suspect that this combination of Iron and Iodine would prove a useful medicinal agent, was my knowledge of the powerful influence of Iron as a tonic, when administered in the state of a Protoxide; and I was aware that it exists in this state in the Hydriodate, into which the Ioduret changes when it is dissolved in water. I supposed that, if this active oxide thus combined with Hydriodic acid were taken into the circulation, a circumstance extremely probable, the Hydriodate, meeting with an alkali, would suffer decomposition, and thus the two compounds would be enabled to exert their separate influence on the system, in a form and under circumstances the best fitted to render them efficient.

Now, there is much reason for supposing that the Hydriodate is decomposed in the system, and that the Protoxide of Iron, and the Alkaline Hydriodate which result, exert their separate influence on the nervous and the vascular organs; the former operating as a tonic on the vital solid, and the latter as a powerful stimulant to the capillary system. Or, if we take another view of the subject, keeping in recollection the striking influence of Chlorine on the solution of the Hydriodate out of the body, and knowing, also, that this agent is evolved in the course of the circulation, it is possible that the Protoxide of Iron, which is set free by the decomposition of the Hydriodate in the system, may be converted into the Proto-muriate of Iron, whilst the Iodine is evolved in a free state; and thus the same tonic and stimulant influence would be as powerfully exerted as in the former case. If either of these theories of the manner in which the Hydriodate operates be admitted as correct, the class of diseases in which it is likely to prove useful at once present themselves; namely, those in which the capillary system requires to be stimulated and the tone of the habit to be maintained, or to be brought up to the healthy standard:—Scrophulous affections, Tabes Mesenterica, Chlorosis, incipient Scirrhus, Rickets, Amenorrhœa, Bronchocele, Atonic Dyspepsia, and all conditions of direct debility."

We have a very humble opinion of the amount of our knowledge as to the *modus agendi* of medicines in the interior of the body. The chemistry of the living alembic is to us a *terra incognita;* and therefore the ingenious theory of our author is as good as any other. It is of more importance to know that Dr. Thomson has successfully employed this combination of iron and iodine in the various forms of scrofula, of which forms he has adduced cases in illustration.

"As the Hydriodate of Iron possesses both the stimulant properties of the Iodine, and the tonic powers of the Protoxide of Iron, the probability that it might produce all the beneficial, without the deleterious, effects of iodine, was presumed; and I was, therefore, induced to order it in *scrofulous* affections. The results that have followed its administration have been such, that I have no hesitation in regarding it a most valuable addition to the means which we already possess of treating the *chronic* forms of these diseases."

* It is scarcely necessary to remark that metallic Iron is insoluble, and that Iodine requires seven thousand parts of water for its solution.

It is to be borne in mind, that the medicine in question is a stimulant; and that, when marks of irritation in the primæ viæ exist, care should be taken to clear the bowels, and remove, if possible, the causes of irritation, before exhibiting the remedy. The following form, we perceive, is that which our author generally employs:

℞. Ferri iodureti, gr. ij. ad gr. iv.
Aquæ distillat. ʒxj.
Tinct. aurantii, ʒj.
Ft. haustus ter die sumendus.

Cases are adduced by our author, and by respectable correspondents, where the remedy was found useful in chlorosis, in carcinomatous diseases, in syphilitic cachexiæ, &c. for which we must refer to the pamphlet itself. As each of the ingredients, singly, is of known efficacy in many diseases, we consider it very probable that the combination will be found a valuable formula.

A DICTIONARY OF TERMS EMPLOYED BY THE FRENCH IN ANATOMY, PHYSIOLOGY, &c. &c. By SHIRLEY PALMER, M.D. Part I. July, 1834.

This is an extraordinary work, and, if completed, will be a very valuable one. We learn from the advertisement, that—

"The present work has been undertaken with a view of facilitating the perusal of French and German literature to the Medical Student or Practitioner who appreciates, as they deserve, the literary productions continually emanating from the press, in France and Germany; and who feels honourably solicitous to appropriate to himself, from their original source, the valuable facts, and the novel and often important views and opinions with which these productions teem. It may also serve to refresh his recollection, ever fleeting and evanescent without practice, of the elements of the Greek and Latin languages.

"How far the work, now offered, is calculated to achieve such objects, experience can alone determine. It was not undertaken in a rash and unreflecting spirit: it has not been, thus far, executed without great labour and research. Had a longer period for its completion been allowed him, or had the Author been able, during such period, to concentrate his attention more exclusively upon the performance, the numerous errors and deficiencies, which the enlightened and experienced eye will readily detect, would not have been suffered to escape correction.

The *Second Part* will appear about December next,—the *Third* and last, with Title-page Preface, and an Index of the German terms, in the Spring of next year."

It is, as we said, an extraordinary work, full of erudition and pregnant with research. We cannot, of course, give an analysis of a dictionary; but, by exhibiting one or two specimens, the reader will be enabled to judge of the work.

"ANE'VRYSME, ANEURYSME, s. m. —ἀνεύρυσμα (ἀνευρύνω, I dilate)—aneurisma, aneurysma, n. L.—aneurisma, anevrysma, n., pulsadergeschwullst, f., die erweiterung einer arterie, G.—aneurism, swelling, dilatation of an artery. Aneurism may be defined, a tumor, formed by arterial blood from dilatation, rupture, or division, of the coats of an artery. The term has been also applied, by some writers, to dilatation of the cavities of the heart, and even to enlargement of the organ from thickening of its parieties.

Aneurism shews itself under three different forms: 1. that of *true* aneurism—*vrai*, F.—aneurysma *verum*, L. —das *wahre* anevrysma, G.—formed by dilatation, circumscribed or diffused, without breach, of all the coats of an artery. In the *former* case, it constitutes the variety called *circumscribed*—circonscrit—circumscriptum, umschreibene;—in the *latter*, the *diffused*—diffus—diffusum—ausgebreitete—of *true* aneurism: 2. *false* or *spurious*—*faux*—*spurium*—das *falsche* anevrysma—formed by a breach of two or all of the arterial tunics, and presenting two varieties;—the *circumscribed*, in which the blood, escaping through a rupture of the internal and middle coats, con-

verts the external coat of the vessel into an aneurismal sac;—and the *diffused*—where the external coat, also, has subsequently given way, and the blood been poured out into the surrounding cellular structure: 3. *mixed* aneurism—*mixte*—*mistum*—das *gemischte*—which likewise comprehends two varieties; one, the *internal*, consisting of an hernia-like protrusion of the internal, through a wound or rupture of the middle and external coats of an artery;—and the other, *external*, produced by rupture of the dilated coats of true aneurism, and consequent diffusion of its contents through the circumjacent membrane.

Besides these principal forms, there is *Aneurism by Anastomosis*—anévrysme par anastomose, F.—das anastomotische anevrysma, G.—apparently caused by aneurismal dilatation of the extreme vessels of a part, and extravasation of blood into the distended cells of the cellular structure.

Aneurismal Varix—Varice anevrysmale, F.—das anevrysmatische Venengeschwulst, G.—is said to exist, when, from the transfixion of a vein, and penetration of the subjacent artery, by a lancet, or other sharp instrument, and consequent adhesion of the two vessels, a direct communication has been established between them; and the blood, flowing from the artery into the vein, dilates the coats of the latter into a sac. If, however, from the obliquity of the wound or other circumstance, such communication be not direct, but take place through the medium of an aneurismal sac formed by dilatation of the wounded artery, and interposed between the vessels, the disease is termed *Varicose Aneurism*—variqueux, F.—aneurysma varicosum, L.—das varikose anevrysma, G.

Aneurisms, from their situation, are, lastly, distinguished into *internal* and *external*. To the *former*, belong aneurisms of the cerebral, and especially of the basilar, arteries—probably a frequent source of fatal apoplexy—and of the thoracic and abdominal aorta: to the *latter*, aneurisms of the temporal and carotid arteries, and of the larger arterial trunks of the extremities. For a minute description of the varieties, formation, and distinguishing characters, of the disease, consult Hodgson's *Treatise;* and Art. *Aneurism*, in Cooper's *Surgical Dictionary*."

"CLIMACTE'RIQUE, adj.—climactericus (κλιμακτὴρ, every seventh year of human life,) L.—klimacterisch, G. The ancients believed that human diseases were developed with greater frequency and fatality in certain years than others: and, hence, every seventh year was called by them, the *climacteric* year—*année climactérique*, F.—κλιμακτηρικὸς ἐνιαυτὸς—annus *climactericus*, L.—stufenjahr, n. G; while the sixty-third, as a multiple of 7 by 9, and therefore peculiarly pregnant with mortal ailments, was distinguished by the title of the *grand Climacteric*. Some physicians have also termed *climacteric—époques climactériques*, F.—certain periods of life, as characterized by revolutions in the human economy not dependent on the numerical progression of years. Such are the period of puberty in both sexes; and that of the cessation of the menstrual flux in the female."

We sincerely hope Dr. Palmer will complete the work, which will form a monument to his industry—an extremely useful Dictionary for all who consult the works of our Continental writers.

MR. GUTHRIE'S OPERATION OF TYING THE COMMON ILIAC ARTERY.

In the 39th number of this Journal, we mentioned that Mr. Guthrie had tied the right common iliac artery for what appeared and was deemed an aneurysm. The operation was thought to be successful, but the patient has since died, and the truth of the Hippocratic axiom—observatio difficilis, experientia fallax—has been illustrated by the event.

The Medical Gazette contains a long and an interesting lecture delivered by Mr. Guthrie on the subject. Much is needlessly apologetic, for Mr. Guthrie can afford to be mistaken. When we subject the lecture to a gentle pressure, its solid residuum is this.

The patient, a lady, was not young, yet amidst the abundance of statements and of information, we find no mention of her age. She had laboured for some time under pain in the hip, when she accidentally struck it. Soon after this a tumor appeared, and when it had attained the size of her fist, it began to beat "like her heart." It continued to increase, and after the lapse of a year she came to town. At this time, the tumor was as large as an adult head, situated on the right buttock, and so inconvenient as to prevent her from lying on that side, or even on her back. Separate examinations were made by Mr. Guthrie, Sir A. Cooper, Mr. Thomas, and Mr. Keate. On the whole, they concluded that the tumor was aneurism, and the common iliac was tied by Mr. Guthrie.

We believe we must be indulged with Mr. Guthrie's own account of the operation.

"I began the operation by placing her on a table, as much on her back as the tumour would allow, and by making an incision upon the fore part of the belly extending, beginning below the inside of the interior spine of the ilium, about an inch, carrying it upwards and diagonally inwards towards the edge of the rectus muscle above the umbilicus, so that the incision was between six and seven inches long. I may state, that if the incision is made in the side, from the ribs to the ilium, in a straight line, the greatest possible difficulty is experienced in turning over the peritoneum so as to place your finger upon the last vertebra; but if a diagonal inclination be given towards the rectus muscle, not opening its sheath so as to expose it, but carrying the incision fully up to that part, then there is room to turn over the peritoneum with its contents, so as to get at the artery.

After dividing, then, the skin and the common integuments, the three muscles were of course also divided in layers; the division of the latter, the transversalis, was attended with very considerable difficulty, inasmuch as there was little fascia transversalis, and the peritoneum was remarkably thin—as thin as the common white silver paper, or nearly so, that is used for ordinary purposes. On attempting to reach the under part, on the inside of the ilium, so as to push the peritoneum over, I found this could not be done; that the tumour had extended inwards; and some bleeding took place from the large veins which surrounded it, giving rise to the caution not to proceed farther in that direction. At this moment, in spite of the greatest possible care that could be taken by Mr. Keate, who protected the peritoneum, a little nick took place in it, and the small intestine made its appearance below. I then tried to gain a greater extent of room upwards; but where the tendon of the transversalis passes directly across to form the sheath from the lower ribs, the peritoneum is usually so exceedingly thin, and so closely attached to it, that it can scarcely be separated but with the greatest difficulty. I knew this from an operation of a similar kind which I performed at the Westminster Hospital the year before, and in spite of all the precaution that I could then take, the peritoneum was on that occasion injured. I was so well aware of the great probability of its being wounded at this part, that I took double precaution; but in spite of all the care that could be taken, this part of the peritoneum was opened, and the right lobe of the liver made its appearance through it. The opening on the fore part of the belly was not large enough to admit the two hands, and there were two openings in the peritoneum, one above, and the other below, each of them much disposed to increase in size by the moving of the patient; and the operation did not seem to be the most agreeable one that could be performed. The peritoneum, however, being separated a little from the posterior wall of the abdomen from the outside, four fingers of one hand could now be introduced under it, and turned a little over towards the opposite side.

There is a point here of great importance to recollect, and it is, that the peritoneum must be raised over without the hand being pushed back towards the posterior wall of the abdomen but as little as can be avoided; for there is

some fat usually at that part, if there be any to be found in the body, and behind which you are very apt to get in performing the operation, instead of going in the front; and if you do, it leads to the under edge of the psoas muscle instead of the upper, and renders the operation much more difficult.

The peritoneum being now separated from behind and carefully turned over, I found I could only get one hand, or a little more, underneath in search of the artery, and that no more room could be obtained by increasing the incision upon the fore part of the belly. Under these circumstances it became obvious that, to seek in the dark, without being able to have the advantage of sight, for the internal iliac artery, which can hardly be found at any rate but with difficulty, was not likely to be attended with success, and I therefore determined upon placing the ligature on the common trunk of the artery. In order to effect this, I separated the peritoneum, passed my finger across the psoas muscle until it rested upon the fifth lumbar vertebra; and I now thought, of course, that I must feel the common iliac artery; it was not, however, to be felt. I passed my finger up as high as the fourth lumbar vertebra, trusting that I should feel the end of the aorta; but even that could not be felt, from a circumstance that I was satisfied had occurred in the previous operation, which is not known in surgery, but which I will now state: it is, that the common iliac artery rises with the peritoneum, which I believe the vein does not. My finger then, resting upon the spine, was beneath the vessel I was searching for. Mr. Keate endeavored, to raise the peritoneum, to give me an opportunity, if possible, of seeing the vessel; but that was quite out of the question; the incision, however long, was not sufficient to allow this to be done. However, on raising the peritoneum a little, he felt the pulsation of the external iliac artery; and I now then, passing my finger upwards, found the common iliac adhering to the peritoneum. I separated it carefully with the point of the fore-finger of the right hand, with the finger and thumb of the left—for no more room could be given—I passed the aneurismal needle, and placed a common thread ligature (now on the table) round the artery, which was done without seeing it. In an operation like this, you must have your eyes at the extremities of the fingers, and your head in your hand. I could bring the artery a little forward, by means of the aneurismal needle which was underneath it; and in this manner it was brought into view. It appeared to be perfectly clear; and I calculated, from feeling the division of the aorta above, that the artery was tied exactly in the middle."

We need not pursue closely the subsequent details. On the following day the patient required bleeding, and was bled. The temperature of the limb was preserved by constant frictions, with the application of hot bottles to the feet.* The operation was performed on the 24th of August, and on the 19th of September, the ligature came away. The tumour rapidly diminished in size, and, in a month, it lessened by one-half. In the course of two months the wound had healed, with the trifling exception of one small point. In December or January the patient went to Scotland. The tumor again augmented in size, and on the 30th of April the patient died, exhausted by disease.

Perhaps it is not necessary to state more than that the tumor was not an aneurism, but a malignant growth, of the nature of medullary sarcoma. The common iliac had been tied about its middle, where its cavity was found, on dissection, to be obliterated. It was pervious above and below, to an eighth of an inch from the actual site of the ligature. No coagulum had consequently formed between the latter and the nearest branch arising from the ves-

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* De Graefe, who saw the patient, recommended the application of cold water to the limb, to maintain vital heat! How strange that the ablest foreigner has always an absurdity to set off against his merits. His organ of common sense is seldom free from a flaw.

sel, or from the trunk of which it was a continuation. The internal iliac on this side was enlarged—the external iliac was unaltered—the principal channels of the collateral circulation were the epigastric and the circumflexa ilii.

The case is one of great interest, of some importance. It does honour to Mr. Guthrie as an operative surgeon, and no discredit as a practical man. We may venture a few remarks on the details.

It is evident that a mistake was committed in the diagnosis. Yet the character and the experience of the Gentlemen who made it affords a guarantee to all who are possessed of candor and judgment, that the error was more owing to the imperfection of science, than the fault of the individuals. It is a fact of which many members of the profession are, perhaps, not sufficiently aware, that very great difficulty frequently exists in distinguishing pulsating medulary tumors from aneurismal sacs. The ordinary means of diagnosis applied to tumors receiving a pulsation from arteries above, beside, or beneath them, are inapplicable to pulsating fungoid tumors, for the obvious reason, that their pulsation is occasioned by their own blood-vessels. It might seem that the capability of emptying a sac by pressure would enable the surgeon to distinguish it from a tumor not containing fluid, and therefore not admitting of diminution by evacuation of its contents. But in some cases of aneurism, the deposition of lamellated coagulum is such that pressure effects little alteration of their size: and pulsating malignant tumors contain so numerous or capacious blood-vessels, that pressure may exert a considerable influence. We need not pursue these considerations farther. It is certain that the diagnosis between the two diseases is occasionally so obscure, that the most experienced and judicious surgeons are liable to error, and have committed a mistake. We may allude to an instance which we witnessed a few years ago.

The patient was a lady, from forty to fifty years of age. The tumor was situated beneath the crest of the right ilium. It extended somewhat upwards into the abdomen, outwards over the natis downwards on the thigh, and inwards to about the centre of Poupart's ligament. Some large veins meandered on its surface. It pulsated synchronously with the heart. A large artery was felt entering it anteriorly, and another was distinguished behind, in the situation of the sciatic branches. Pressure on the common femoral artery was said to arrest the pulsation in the tumor. The tumor, when first seen by the surgeon, (an experienced and a good one,) whose patient the lady was, had little or no appreciable pulsation. The surgeon considered it an abscess. The tumor began to pulsate, and the surgeon then thought it fungus hæmatodes. In order to decide the matter, he punctured the tumor in two places with a grooved needle, when there issued from each puncture a *pulsating* jet of arterial blood. This circumstance appeared so decisive of aneurism, both to him and to other surgeons who saw the case in consultation, that the common femoral artery was tied. The ligature on this vessel had not the effect of commanding the pulsation in the tumor. In six days after the performance of the operation the patient died. The pulsation in the tumor had never ceased. The tumor, on dissection, was highly vascular, and of medullary consistence. The external circumflex artery passed into it.

We have heard of another case, in which a mistake of this description was committed. The publication of Mr. Guthrie's case will have the good effect of directing attention to the subject, and though it must be owned that it does not enable us to fix on any symptom as peculiarly characteristic of either disease, it is calculated to teach the surgeon to pause, and to hesitate more than he has previously done in performing a serious operation for the cure of a pulsating tumor. Caution in such cases is now more indispensable than ever, and perhaps this alone may prevent the frequent occurrence of mistakes. In the present state of science, it is probable that such occurrences are more likely to be avoided by attention to the history of the complaint, to its seat, its

general features, than by resting on any particular character. The "purring thrill," for instance, or the "whizzing" said to be diagnostic of aneurism, are now well known to be produced by pressure on any artery of large dimensions.

A word or two may be permitted on the operation itself. To say that it redounds to the surgical reputation of Mr. Guthrie, would be merely to express, in imperfect language, the feeling which all must entertain. We may add two remarks of that gentleman upon the subject.

"It was not formidable from the bleeding, but from the circumstance, that room could not be got for the introduction of the two hands; and, strange as it may appear, the whole safety and ease in doing the operation consist in the incision being so large at the fore part of the belly, that the bowels and the peritoneum may be freely turned over by the two expanded hands, so that you can see what is going on underneath. In the former case, the whole parts could be seen in the peritoneum distinctly, and several gentlemen not in the profession saw the iliac artery in its natural situation. I have no hesitation in saying, that, in the manner I have described, the operation of applying a ligature on the aorta might be accomplished without the least difficulty. I could as easily have tied the aorta as the common iliac artery; it was only necessary to have gone an inch higher. If at any future period it is necessary to pass a ligature round the aorta, it is in this way the operation should be performed.

But this operation will lead to another important result; I believe it will prove that it will never be necessary again to put a ligature upon the aorta. It has been twice attempted, and in both cases the patients lost their lives, just as they would have done if the operation had not been performed. If you examine the parts in the dead body, you will find that, if you can only apply a ligature three-quarters of an inch from the termination of the iliac on one side, that it requires little knowledge to pass one over the iliac artery of the opposite side; so that, when an aneurism has been formed, and you cannot tie the iliac artery of the side in which the disease is situated, you may be enabled to do it in the way I did this operation —from the opposite side, and it is not rendered necessary to tie the great trunk of the aorta at all. That is one of the most important results which I think may be deduced from the operation I have described."

Mr. Guthrie indulges in an observation on the consequences of the application of the ligature to the artery, to which we shall venture to allude.

"A little opening was made in the artery above and below where the ligature was tied, in order to observe the state of the vessel; and it appeared that it was pervious to within the eighth of an inch on each side of it; so that the ligature just cut the artery through, and the two cut edges united by adhesive inflammation above and below, without forming a coagulum, and without diminishing up to the next collateral branch—a fact which I have said always existed—but which is quite contrary to the received opinions of the present day."

If Mr. Guthrie intends to affirm that coagulum is never deposited in an artery, between the part tied and the nearest branch, there are numerous well-attested facts that might be mentioned, which establish the occurrence. Surgeons have also been aware, that at times no coagulum of this sort is formed, and yet that secondary hæmorrhage does not follow. We presume that the fair interpretation of the passage is, that Mr. Guthrie has long been inclined to deny the necessity, and disbelieve the frequency, of the deposition of such a coagulum. The present case is remarkably in point.

Before we quit the case, we must venture to observe, that we cannot understand how the common iliac artery could be carried forwards with the peritoneum. Its anatomical relations would seem, *à priori*, to forbid such a displacement.

Again we offer Mr. Guthrie our con-

gratulations on the manner in which he performed the operation. Much as it does him honour, his candid narration of the issue of the case is calculated to increase his genuine reputation.

RECLAMATION OF VALENTINE MOTT, Esq. WITH REFERENCE TO THE OPERATION OF TYING THE COMMON ILIAC ARTERY.

We cordially publish the following letter from Mr. Valentine Mott, one whose reputation should be dear to America. It is singular that it should arrive at a time, when the result of the operation performed by Mr. Guthrie on the common iliac artery has been such, as to give the palm of success to Mr. Mott. But success is, after all, a false touchstone of merit; and the character, both of Mr. Mott and Mr. Guthrie, will be measured by a fairer and a higher standard.

New York, 25, *Park Place*,
June 10*th*, 1834.

SIR,—As the individual upon whom I operated, in the year 1827, for ligature of the *arteria iliaca communis*, is still living, may I ask of you the correction of the following sentence, in the "Medico-Chirurgical Review" for Jan. 1834. "Thus this most formidable operation has been successfully performed *for the first time*, and while it adds a wreath of laurel to the brows of the distinguished surgeon, it exhibits a splendid triumph of British surgery."*

It is worthy of remark, that Mr. Guthrie has committed the same error in his work, p. 365—"on the Diseases and Injuries of Arteries," especially as the case is quoted from the "American Journal of the Medical Sciences," the last paragraph of which is in the following language:—"The gratification his visit afforded me is not to be imagined, save by those who have been placed under similar circumstances.† The *perfect success* of so important and novel an operation, with the *entire restoration* of the *patient's health*, was a rich reward for the anxiety I experienced in the case, and, in a measure, compensated for the unexpected failure of my operation on the *arteria innominata*."

While justice to American surgery requires that I should make this statement, I shall always be ready to award to the British school the merit it is so justly entitled to, and of which I am proud of acknowledging myself to have been a pupil.

With great respect, I have the honour to be,
Your obedient Servant,
VALENTINE MOTT.

To JAMES JOHNSON, M. D.
Physician Extraordinary to the King.

FRACTURE OF THE SKULL, WITH DEPRESSION. OCCURRENCE OF CONVULSIONS, AND CURE.

Mr. Cotton, an intelligent surgeon of Bagshot, has communicated an interesting case of this description to the Lancet.* We shall briefly state the particulars.

Case. A boy, æt. 14, was thrown against a gate, and trodden by a horse, at 10, a. m. of the 4th July. There was a lacerated scalp-wound above the external canthus of the left orbit—a puffy swelling on the zygomatic arch—and a simple fracture of the parietal bone, embracing its posterior half, and extending obliquely forwards, to the junction of the squamous portion of the temporal with the greater ala of the sphenoid bone. The bone was depressed, and the scalp much puffed. There was bleeding from the nose and mouth—there was a state of drowsiness, alternating with shrieking, and

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* Mr. Guthrie's case.

† The patient having come twenty-five miles, nearly three months after the operation.

* Aug. 9th, 1834.

efforts to remove himself from the bye-standers—the pulse was labouring and quick.* The head was shaved, and cold lotion was applied, shortly after which the patient was seized with violent convulsions, and distressing attempts at vomiting. These symptoms continued for an hour and a half, and ended in complete insensibility. The pulse was now labouring, irregular, 56—the pupils permanently dilated, and insensible to the application of a lighted candle—the respiration stertorous.

VS. ad ʒxxx. ℈j. *of Calomel, placed upon the fauces. Enema of muriate of soda, colocynth, and jalap.*

Several copious evacuations were procured, and at 2, p.m. four hours after the accident, the symptoms were somewhat relieved. At 7, p.m. the patient was sensible on being roused, and complained of excruciating pain in his head. Pulse soft, 76—skin warm—tongue furred. The slightest pressure on the seat of fracture produced convulsive movements. *Lemonade was ordered as a drink, and salines with Epsom salts were prescribed as medicine.*

He passed a restless night, repeatedly attempting to get out of bed, and talking incoherently. Next morning, the skin was hot and dry—the pulse sharp and 86—the tongue furred—the pupils sluggish and dilated. He was drowsy, but conscious when moved and still complained of severe headache.

VS. ad ʒx. *Calomelanos*, gr. ij. *o. 3tiâ horâ. P. c. aliis.*

In the evening, the symptoms were sensibly relieved, and after that time, the amendment of the patient was progressive, though slow. We need not pursue the details. The report of Mr. Cotton concludes upon the 21st, seventeen days from the reception of the injury. The wound of the scalp was then healed. No unpleasant symptom remained, excepting a slight deafness. There was no perceptible depression of bone, "but an evident callosity in the course of the fracture."

Whatever the nature of the fracture and extent of the depression may have been, a careful consideration of the particulars of the case will convince the experienced surgeon, that moderate pressure on the brain existed. That the pressure *was* moderate, is proved by the presence of convulsion, and concomitant absence of long-continued stertor and coma. The observations of Mr. Brodie, the records of facts, and the study of the symptoms and pathology of hydrocephalus, establish the important fact, that convulsions are a consequence of comparatively slight compression of the brain.

The treatment of the case before us was as judicious as successful. We may equally approve the early and the secondary management—the application of cold, the venæsection, and the purging in the first instance—the steady exhibition of calomel, when the symptoms of fever and the pain in the head became indicative of the supervention of inflammatory action. This is the practice we have taken repeated opportunities to recommend, and it gives us great pleasure to offer Mr. Cotton the advantage, small as it may be, of the cordial approbation of this Journal.

* It seems difficult to reconcile the two conditions.—REV.

THE CHOLERA.

Our readers may probably remember that, when the cholera prevailed, we devoted much space and some trouble to the subject, and endeavoured to lay before the medical public all that was interesting, important, or novel with respect to it. We see no reason to regret the course we thought it prudent and right to pursue. We endeavoured to allay unnecessary apprehensions, and dispel unreasonable terror—we denied the virulent contagiousness of the malady, and doubted its power of extensive mischief in this country—we denounced vexatious quarantine regulations as useless, and, consequently, bad—we reprobated the attempt to coerce the dearest feelings and the prejudices of the people by legal enactments and the interference of police—we ridiculed the mummery of fasts and

fumigations, and midnight burials—and last, not least, we did our best to expose the enthusiasm, or the quackery, of "legally qualified" gentlemen, who confidently published their nostrums and their cures, at a time when the mortality was notoriously at its highest.

We do not intend to re-argue the nature and the causes of cholera. Of the former, we know as little as we ever did—and the latter are enveloped in equal obscurity. Extreme opinions have, we trust, been softened down—the bitterness of party has expired with the occasion—and we think we may assert, that the majority of well-educated, practical, and reasonable men have arrived at nearly the same conclusions, and act on very similar principles. None dream at present of advocating quarantine—few entertain the idea or the wish of alarming the public with the notion of contagion—all are convinced that, in the great mass of cases, care on the part of the individual affected, and judgment on that of the medical attendant, will be amply sufficient to obviate the occurrence of malignant symptoms, or of serious consequences—and most are convinced, also, that when, from imprudence, from inattention, or from any other cause, the worst features of the malady have appeared, remedies of all descriptions are too generally powerless. The common sense of intelligent practitioners has led them to regard the vaunts of successful treatment, in *such* cases, as idle fancies or unblushing falsehoods.

Those who are familiar with the history of cholera are probably aware, that at the time when it was committing its greatest ravages in Hindostan, the newspapers of that province teemed with the accounts of successful remedies. So fatal were the consequences of these daily cures, that the government was compelled to prohibit their publication. We do not know that the evil has been quite so formidable in this country; but, whenever the disease has been most prevalent and fatal, we have always remarked that most specifics, or pseudo-specifics, are made public. In the Autumn of 1832, the weekly, the monthly, and the quarterly medical journals were rife with proposals of the most opposite descriptions, resembling each other only in their success. Mr. A. amazed the public with a series of cases of the most malignant cholera, triumphantly treated with calomel and opium—Mr. B. looked with horror on that murderous practice, and effected all his cures with cold water—Mr. C. was successful, by preventing his patients from slaking their agonizing thirst, although, like Dives, they implored but one drop to wet their lips. Dr. D. administered fluids by bucketsfull through the mouth, the anus, and the veins. All were sanguine, all victorious, and the difficulty was, not to discover a specific, but to choose one. Some simple persons were delighted with all this, and rapturously received each Shiloh as he came. But the rapid succession of miracles and prophets at length proved too much for even the most credulous digestion. The true believers were forced to confess that they had thrown away their faith on false divinities, and were compelled to fly for comfort to the fond idea, that a genuine specific existed somewhere, though, like Solomon's seal, its possessor was unknown. It is not impossible, said the Lancet of that day, "that a specific for cholera has already been discovered."

It may seem that we are talking of things that were, of follies irrevocably past, and of credulity not likely to revive. A moderate acquaintance with mankind is sufficient to stamp the truth of the remark, that experience seldom instructs the mass. The deceived and abandoned credulity of yesterday is enacted on the stage of to-day, and the same performers are often seen to play again their proper parts. His Majesty's medical subjects are, at this very moment, exhibiting a pantomime of this description.

When the epidemic cholera first commenced its career in this country, the practice in which most confidence was placed was venesection, and the exhibition of calomel and stimulants. A brief experience was sufficient to convince all unprejudiced practitioners,

that cases of a really formidable character were not amenable to these remedial measures, however rational their employment might appear. Then succeeded, at a rapid pace, the advocacy and the trial of innumerable modes of treatment, some more and some less plausibly supported, but all, without exception, brought forward by their parents as successful, in cases of the worst description. It would be tedious, and it is unnecessary, to recount in due order the rise and fall of these successive methods; but a brief enumeration of the principal may be of service. Waiving a very strict attention to chronology, they may constitute the following list:—Stimulants and frictions—large doses of calomel—small doses of calomel—calomel and opium—emetics of mustard, of common salt, and of tartarized antimony—salines by the mouth, by the anus, by the veins—water of all temperatures and in all quantities—no water at all—the application of heat—the application of cold—drugs beyond number, and of every conceivable mode of operation—bandages on the abdomen. We will not fatigue our readers nor ourselves by attempting to extend this heterogeneous catalogue. But one observation may be usefully permitted. Each successive contributor of a method or a drug denounced the mischiefs, or deplored the inertness, of those which had already been proposed. The water doctor cried "murder" when calomel and opium were employed—the patron of emetics pitied the weakness of the water doctor—and the sturdy advocate of calomel or of stimulants looked with derision upon both.* Amongst the audience that surveyed the performance of this play of many parts, some individuals looked on with philosophical incredulity and apathy; but the multitude were caught by each clever juggle, and rapturously cheered each dexterous actor.

From the hasty sketch of what *has* occurred, let us turn for a brief space to the present scene.

Early in the Autumn, many cases of diarrhœa, and some of cholera, were observed in the metropolis. Towards the latter end of August, a sudden and a great alteration took place in the temperature and in the weather. The thermometer sunk rapidly fifteen or twenty degrees, and sultry days were followed by nights of actual coldness. The attacks of diarrhœa multiplied, and insulated instances of malignant cholera soon became whispered abroad. Few medical men, in extensive practice, failed to see decided cases of the malady, and, about the close of August, its prevalence and its severity had become incontestable. Now came the private panic and the public gossip—dietetic *leaders* in the weekly Journals—and a dinner of the market-gardeners, at which fruit was ostentatiously devoured, and cholera boastingly defied—and now, above all, came the insulated cure or the general specific—the drama, in short (a tragedy and farce), of the previous years were advertised again, the old dresses furbished, and the old actors rouged.

It seemed as if the fond illusion of the Lancet was realized at last—as if the specific which it thought might exist, but had not been discovered, was at length presented to the public. In the Number of that Journal for the 23d of August, a communication appeared from Mr. Beaman, announcing a remedy "so extremely successful," that he laid it before the profession and the public. That remedy is applicable, and Mr. Beamen desires that it may be thought so, to cholera, in its worst and most aggravated form. In that form, it had cured "no less than eleven consecutive cases." It must be owned, that a remedy which can lead to a happy issue so great a number of malignant cases must, indeed, be a boon to afflicted humanity. It is—emetics of common salt!

Many might deem that the plan of

* This is no idle flourish of words. Every observation in this article, sarcastic or rhetorical as it may appear, is founded on the recollection of circumstances that have occurred.

emetics had already been sufficiently tried and found wanting; and that the melancholy experience of preceding years had demonstrated their real value. Our contemporary does not think so. He considers the communication of Mr. Beaman as "one of the most important that has been made connected with the treatment of malignant cholera"—he entreats his brethren to try the remedy, and to note down the results of their observations—and he opens an editorial cholera-box, not "for long detailed cases, which would require much time in the *concoction*," but simply for those leading facts sufficient to answer every good public purpose. In a subsequent number a mild attempt was made by another gentleman to urge the claims to public notice of the "pil. ceræ, phos."* But the editor checked the impertinent intrusion, and observed that the preference must be given to communications illustrative of the effects of salt-water emetics. Mr. Wardrop, perusing with attentive satisfaction the important observations of Mr. Beaman, forwarded without delay some remarks from Dr. Hoskins, a communicant from Guernsey. Those remarks are so brief that we will venture to insert them.

"When the disease visited us two years ago, we found common salt and water the best remedy. Its superiority to any other plan forced itself upon our attention, and our Cholera Hospital became extremely popular as a medical asylum, with all ranks and classes. I may mention, that out of sixty-two cases admitted into the hospital in the third stage, and treated solely with solutions of salt, forty-six recovered, and only sixteen died, whereas the mortality following the opiate and stimulant treatment was about sixteen in thirty-seven. At first I adopted the opiate plan, but soon afterwards became a convert to the saline."

Mr. Wardrop and the Lancet would appear, unless we misconceive the words and the meaning of Dr. Hoskins, to have misunderstood his treatment. He makes no mention of salt and water as an emetic, but gives it after the *saline* fashion. This is a different affair.

It requires no gift of prophecy to foretel, that before this article is published, salt and water emetics will probably have given way to some other equally successful plan of treatment. We would not swear that the pil. ceræ phos. will not be in vogue on the first of September, and we think it very likely that the immortal Dr. Stevens will be actively dispensing the inestimable blessings of salines. Damaged rice, we perceive is pouring into the market, and since Dr. Tytler, Cassandra-like, is unheeded, there seems every reason to believe that the next few weeks will be prolific in opportunities for the friends of humanity to perform their cures and to publish their specifics.

In conclusion, we may offer a few observations on what appears to us the most rational manner of regarding and of treating this singular complaint.

The variety of symptoms displayed by different individuals would seem to preclude the probability of any single remedy becoming applicable to all. If we take the worst cases, we find in one the vomiting distressing and incessant —in another, purging is the prominent characteristic—in a third, the collapse is out of all proportion to either of the former symptoms. In this, as in every other disease, the practitioner should study the features of each case, and regulate his practice by the character they wear; he should also consider the age, the constitution, the habits, and the powers of the patient. In the majority of instances, diarrhœa continues, as before, the preliminary symptom. We have heard it remarked, that collapse is more sudden, and death more rapid than in former years. Our own observation would lead us to doubt the correctness of the supposition.

We have never found the diarrhœa

* This useful abbreviation is probably typical of pilula ceræ phosphorata, a compound, we may suppose, of phosphorus and wax. We presume that this mixture of combustible materials is chiefly adapted for the cold stage.

resist a dose or two of calomel or blue-pill, combined with opium and some essential oil, and succeeded by aromatic draughts containing rhubarb with hyosciamus, and generally the liquor opii sedativus. These remedies, assisted by quiet, confinement, and restriction to slops, have not failed in any instance we have seen to arrest an attack of diarrhœa.

In cases of cholera, that is of vomiting and purging, of moderate severity, the exhibition of small doses of calomel and opium, accompanied with effervescing draughts containing laudanum, and with opiate enemata, if the purging is considerable, are the means we usually employ. The patients should, of course, be confined to bed, and warmth or mustard sinapisms must be used, if necessary. Emetics are always beneficial in the first instance. They sometimes arrest the vomiting immediately, and they always appear to facilitate recovery. Beyond this we doubt if emetics are of much service, and certainly we would not dream of allowing them to usurp the office and the place of the other remedies we have mentioned.

In the very worst cases of cholera we really believe that it signifies little what may be done. Death occurs in the great majority, and those that have done well, have been treated in such various ways, that it appears impossible to attribute much to any one method. Under such circumstances, the safest practice is usually to trust to those general principles, which are themselves the sum of many facts, and the results of the extensive observation of disease. If much coldness and collapse are present, the application of external heat and of sinapisms appear reasonable and has proved of service—if the thirst is excessive, fluid should be granted, the quantity and the temperature being regulated by the wants and the wishes of the patient—if the vomiting is very violent and continual, the less that is given by the mouth the better—the purging should be met by starch injections with opium—and if prostration is urgent, stimulants in some shape do really appear to be imperatively required. We must say we are advocates for the moderate employment of calomel. If the vomiting and purging are severe, it is better to combine it with opium—if not, the quantity of the latter should be small, or it may probably be usefully dispensed with. We have said that if sickness is a prominent symptom, it is better to avoid, as much as possible, exhibiting medicine by the stomach. Under such circumstances, when collapse was urgent, we have, on several occasions, adopted with much apparent advantage, the plan of administering every hour or two, enemata of small quantities of beef-tea, arrow-root, brandy, and laudanum in conjunction. In some cases of seemingly hopeless collapse, reaction was established under this management. Calomel, with or without opium — effervescing opiated draughts, if the stomach will at all retain them—enemata with laudanum if the purging is severe; of beef-tea, arrow-root, laudanum, and brandy, if sickness constitutes the principal feature—warmth and sinapisms on the surface—and the fluid the patient may prefer, commonly cold water, form our general system of treatment in the worst cases of cholera. There are many particulars on which we will not enter, and much must, of course, be left to the tact and the judgment of the attendant on the case.

Of bleeding we will only say that, although it is of service in robust individuals, and in the earlier stage of the complaint, it is seldom advisable under other circumstances.

But the surgeon or physician must carefully watch the symptoms that occur on the subsidence of the collapse. Then is the period for local congestion —then is the time when the seeds of irremediable mischief are sown in the head or in the intestinal mucous membrane. It must not be forgotten that those who die in the second stage, are generally cut off by inflammation or ulceration in the mucous membrane of the bowels: or, by congestion, perhaps inflammation of the brain. The case is one of typhus, in the true acceptation of the term; as such it must usually be treated. The moment any organ ap-

pears involved, leeches should be instantly applied and repeated as necessity requires. Calomel or hydrargyrus cum creta, in two or three grain doses, should be given three or four times daily—aperients of rhubarb to carry off depraved, and promote the restoration of natural secretions, should be cautiously but steadily employed. Under these or similar measures many patients will recover, (we mean they have done so,) whose situation appeared most gloomy, if not actually desperate.

Such are the results of the experience of those whose opportunities entitle them to the privilege of pronouncing an opinion—who have looked at the disease as practical men—who have tried and witnessed various methods—who have no exclusive partialities, nor any object to attain—and who merely relate, in a hurried and imperfect manner, what they have found to be consistent with facts. Without attempting to discourage experiments, they cannot avoid expressing the belief that hitherto they have succeeded in establishing only the general inefficiency of any particular class of remedies.

CASE OF CHRONIC ENLARGEMENT OF THE CLITORIS, REMOVED BY MEANS OF LIGATURE. By JAMES EDWARD, Surgeon, Forfar.

The following case has been communicated to us by Mr. Edward. He appears to have treated it with skill, and to have removed the disease with decision. We have seen several instances of similar alteration of the prepuce, of the clitoris, of the labia, and of the nymphæ. We think that excision is usually preferable to the employment of the ligature. It is more expeditious, less painful, and productive of no risk or inconvenience.

"In December, 1833, Mrs. Lindsay, about 40 years of age, consulted me regarding her complaints. On inspection, the clitoris was found to be about eight inches long, and of a pyriform shape. The pedicle of the tumor was firm, and about the thickness of the wrist; the most depending part of it hard, and fully larger than two fists. The nymphæ were elongated, and covered with a dry, smooth, and pale-coloured cuticle, pretty thickly set with small warts. The clitoris presented a similar appearance, except having none of the warty excrescences. The mucous membrane, having lost its secreting power, was become smooth and dry, and, by reason of the external position of the parts, was converted into an opaque, insensible cuticle. The sensibility of the parts, when elongated so as to project beyond the labia, was greatly impaired. With the exception, however, of being of a solid and fibrous structure, instead of a loose and spongy texture, they were not, in any other respect, morbidly changed. The disease was of two years' standing, and had commenced shortly after the patient's having undergone a course of mercury for syphilis.

While the external parts were held aside by an assistant, the clitoris was pulled out as far as possible from under the pubes, and a ligature applied close to the base of the tumor.

Excruciating pain was complained of during the first day, after which it gradually subsided. The ligature was tied every day for eight days, at the end of which the tumor dropped off.

LITERATURE OF THE QUARTER.

We purpose, in this manner, to introduce to our readers a few works, which we cannot, with advantage, consider in separate and ceremonious articles. Our bibliographical record is devoted to the enumeration of books which we receive—our review department to works which deserve analysis, or must submit to criticism—and this corner may serve for the reception of those which merit some, but are not adapted for a lengthened notice. Let us look upon our list.

I. ILLUSTRATIONS OF THE EFFECTS OF POISONS. By GEORGE LEITH

ROUPELL, M. D. The Plates from Original Drawings, by AND. MELVILLE M'WHINNIE, M.R.C.S. Part II. Eighteen Shillings.

The former part of this useful work was noticed in a former Number of this Journal. The part in question contained four illustrations—the present exhibits a similar number. The first represents the effects of concentrated sulphuric acid—the second those of a large dose of oxalic acid—the third displays the consequence of a large dose of corrosive sublimate—and the fourth the condition of the mucous membrane produced by alcohol. The first illustration is drawn from poisoning and the human stomach; the originals of the other three are the stomachs of dogs that had been subjected to experiments.

1. *Effect of Concentrated Sulphuric Acid.*

A boy, æt. 2½, drank inadvertently some strong sulphuric acid. Immediately after swallowing the poison, he fell on the floor; when raised, his tongue was swollen and protruded from his mouth, and he complained of acute pain at the epigastrium. Medical assistance was quickly procured. The carbonate of magnesia was given, which occasioned active effervescence in the mouth. Castile soap in solution was afterwards administered; vomiting then came on, and acid matters, partly composed of food, were rejected from the stomach, followed by a large quantity of black, grumous blood. Leeches were applied to the epigastrium. No re-action followed the depression, which resulted from the injury to the stomach and œsophagus. The skin was cold. The pulse scarcely perceptible. The little boy remained perfectly sensible and in a state of comparative tranquility until his death, which took place within twelve hours after the accident.

Dissection. The external marks consisted in vesication and discoloration of the lips, and in a hard, brawny patch on the left cheek, about the size of a half-crown, and of the colour of parchment.

The tongue and inner part of the mouth were of a dirty grey colour.

"The inner lining of the œsophagus was puckered, dry, hardened and brittle; it was readily detached from the parts beneath and came off in small scale-like portions.

The coats of the stomach were thin and allowed the contents to be seen through them. When opened, the whole of the mucous membrane was of a dark colour, apparently stained by a bloody fluid, four ounces of which were contained in the stomach.

The large end was in no respect altered in texture, but the whole circumference of the smaller end ,about midway between the œsophagus and pylorus, was black, irregular, rough, and thickened. The change which had taken place here was the destruction of the mucous membrane and the effusion of blood from the injured portion, some of which had coagulated, and adhered to the part acted on by the acid.

There was no perforation of the coats of the stomach in this instance, nor was there any inflammation of the peritoneum. Life was apparently destroyed by sympathy of the brain with the injury to the stomach and œsophagus."

Dr. Roupell observes that the yellow stain, so remarkable in cases of poisoning by nitric acid, was no where visible in this instance. The plate representing the interior of the stomach and œsophagus is probably correct, and certainly well executed; yet it is devoid of that pictorial exaggeration and gaudy colouring so frequent in plates of morbid anatomy.

2. *Experiment to show the Effects of a large Dose of the Oxalic Acid.*

Two scruples of oxalic acid, dissolved in an ounce of water, were introduced through a glass tube into the stomach of a small dog, by an aperture in the œsophagus, which was subsequently tied, to prevent vomiting. In a few minutes the dog made urgent attempts

at vomiting; these were interrupted by cries of distress, and renewed with very little intermission until its death, which resulted in half an hour from the administration of the poison. In this case the animal remained curled up in the basket into which it had been placed after the operation.

(Another dog, to which a drachm of the acid was given, exhibited nearly the same symptoms; vomiting came on in five minutes; in ten minutes the hind limbs were paralyzed, and death resulted in twenty minutes. Muscular contractility was nearly destroyed in this case; the heart scarcely contracted on the application of stimuli, though made immediately after death.)

Dissection 24 hours after death.—The œsophagus was natural in its appearance.

The stomach was vascular externally, and the hour-glass contraction was present. "It contained about four ounces of a dark-coloured, thick tenacious fluid at the larger end, which had stained the mucous surface. The coats were generally pulpy, softened, and had a white transparent appearance, but no perforation had taken place.

The duodenum was red, and presented dark coloured lines corresponding with the projecting rugæ, which had the appearance of being charred."

Dr. Roupell remarks, with apparent justice, that the black matter contained in the stomach was, in all probability, effused blood, altered by the acid.

3. *Experiment to show the Effect of a large Dose of Corrosive Sublimate.*

A drachm of corrosive sublimate was introduced, as in the last experiment, into the stomach of a dog. The animal was greatly depressed, but remained tranquil, and exhibited little outward signs of pain. It was alive between four and five hours after the administration of the sublimate, but was found dead when seen afterwards.

Dissection 22 hours after Death.—The œsophagus was natural.

The stomach, externally, was highly vascular. It contained several ounces of a thin, dark-coloured fluid. The whole inner lining was of a leaden hue; this was the mucous membrane, which appeared to be universally in a state of slough, but it was in no part detached.

The duodenum, at its commencement, presented a mixed appearance, partly red, partly of a lead colour, as if the irritant and corrosive effects of the poison were here blended; the mucous membrane was thickened and had a roughened aspect.

The whole of the small intestines were inflamed, a thick white mucus being generally effused upon their mucous membrane.

Dr. Roupell remarks that, probably, the quantity of corrosive sublimate administered in this experiment, is greater than would be voluntarily or accidentally swallowed. From this circumstance, the morbid changes usually produced in the stomach resemble those observed in the œsophagus in this instance.

4. *Experiment to shew the Effect of Alcohol upon the Mucous Membrane.*

An ounce of rectified spirits, mixed with an ounce of water, was introduced into the stomach of a large dog. In a few minutes it ran about in a hurried manner, uttering a bellowing sound, and making attempts at vomiting. In ten minutes, it was "dead drunk." Next day it was so much recovered, that it was killed by a blow upon the head, and immediately examined.

The œsophagus was natural.

The stomach was slightly vascular externally, and presented a well marked hour-glass contraction. It contained an ounce of a thin bloody fluid, mixed with frothy mucus. The rugæ were prominent, and those of the large extremity were almost universally covered with patches of ecchymosis of a deep crimson colour. The intervening portions of mucous membrane retaining their healthy appearance.

The more usual appearances, after taking spirits, says Dr. Roupell, are not such intense congestion as in this instance, but a dusky-red colour of the membranes. Cases, however, have occurred, where death has resulted from a large quantity of spirits swallowed at a

draught, yet no obvious alteration of structure could be detected. In these instances, we may suppose that the action of the alcohol upon the nervous system has been so powerful as to destroy, before any local alterations were produced.

The experiment shews the mode in which the abuse of ardent spirits affects the mucous membrane of the stomach. The gin-drinker always suffers from chronic gastritis, and the mucous membrane is found on dissection thickened or softened from chronic inflammation. The liver incessantly stimulated, takes on a form of inflammatory action also, its acini become enlarged, and at last the tuberculated condition is produced. When to these more obvious and immediate consequences of the use of ardent spirits we add the frequent concomitants and sequlæ—the hypertrophic heart, the thickened tunics of the arteries, the consequent apoplexy or dropsy—or, in weaker constitutions, the phthisis, perhaps the malignant disease—we have pictured to ourselves the happy proselyte to the worship of Gin, his prostrate adorer in those whitened sepulchres, his modern temples. And this, as Benedict says, is our conclusion.

II. FRAGMENTA DE VIRIBUS MEDICAMENTORUM POSITIVIS, SIVE IN SANO CORPORE HUMANO OBSERVATIS.—— A SAMUELE HAHNEMANN, M.D. &c. &c. &c. Edidit F. F. QUIN, M.D. &c. &c. &c. Londini. Veneunt apud S. Highley, MDCCCXXXIV.

This is altogether an extraordinary work, extraordinary at least considering that it is edited, printed, and published in the city of London, in the year of our Lord 1834. What physician, surgeon, or apothecary would dream of writing a book in Latin?—Who are to be the readers?—The profession? It will never peruse one page, unless some unhappy dog-eared critic shall deem himself in duty bound to "pause and ponder and ponder and pause" at its curiously concocted paragraphs. If the faculty eschew the remarkable production, we are sure it will never find favor with the public. No general reader, in fact, could understand it. The whole affair is a phenomenon.

> Quale portentum neque militaris
> Daunia latis alit esculetis;
> &c.

A clerical admirer of homœopathy has ventured to indulge in the auspicious prophecy, that the period will arrive when Hahnemann, "that young man," will come on us like Punch in all his glory. The dogmatists and the empirics, and the proselytes and professors of all other sects in the pantisocrasy of medicine, should make the most of the time they have, for their days assuredly are numbered. If prodigies and portents usher in revolutions and wait on the rise and the fall of dynasties—if Brutus cannot plant a dagger in Cæsar, without exciting the wrath of a comet, and turning the solar system topsy turvy—we may fairly suppose that the fall of the ancient science of medicine will excite some little pother in the land of spirits, and set those deities, or gnomes, or sylphs, or whoever else the scene-shifters may be, to contrive some omen or portentous accident, which may lead the most thoughtless to expect a change. Such an omen we consider this book. Good God! only to think of our publisher, Mr. Highley, being involved in the diablerie. He has certainly sold himself to Mephistopheles, and his family may find in some secret drawer a bond, apparently written, in red ink, but actually signed, oh horror! in his blood!—Poor Mr. Highley!

The charming or charmed pages (their number is exactly 212) are occupied with an enumeration of the mystic properties of certain chemicals or drugs, amongst which we may enumerate the aconitum napellus—arnica montana—atropa belladonna—chamomilla matricaria—cocculus menispermum—copaifera balsamum—digitalis purpurea—ipecacuanha—ledum palustre, and various other pharmaceutical simples—some of which are usually considered active, whilst others are commonly deemed inert in their effects.

Midas, we all know, had the faculty of turning what he touched to gold. We will not affirm, nor will we even hint that Hahnemann or his disciples enjoy the power, nor express the wish to convert the cube root of rhubarb to a sovereign, or the infinitesimal extraction of the chamomilla matricaria to half a guinea neatly wrapped up in white paper. But we do maintain that the new doctrine is possessed of the marvellous property of making all it touches homœopathic—and that facts, conclusions, observation, experience—all become invested with new faces and new forms when fused in its alchemical alembic. We may take the instance of feverfew—matricaria chamomilla.

The carelessness and ignorance of the old system of physic condemned this potent remedy to banishment from the shelves of the chemist and apothecary. Its name was seldom seen but in treatises on botany, and its virtues were appreciated in the recipes of old women, rather than in the orthodox prescriptions of doctors. Yet the wand of Homœopathy has converted this desert to a garden, and the forsaken feverfew blushes to find herself diffused through thirteen goodly pages, and adorned with two hundred and seventy-two properties! The astonishment of the reader at the pleasing change resembles that of the hermit in the ballad, at recognizing in his guest a lovely maid.

> The bashful look, the rising breast,
> Alternate spread alarms;
> The lovely stranger stands confest
> A maid in all her charms.

Some of these properties, we allude to the feverfew and not to Angelina, are singular and unexpected. We shall signalize a few. The 29th runs thus:—

"Cogitationes, ideæ, evanescentes."

The 45th requires that an infant should be dandled; for, a fact so remarkable, that, unless well attested, we could not have believed it, the baby grows restless if not in arms.

"Non nisi gestatus quiescere potest infans."

The 51st evinces the accurate observation of the homœopathists. A patient who imbibes the matricaria chamomilla grows sulky for exactly the period of two hours.

"Morositas per duas horas durans."

The 88th property particularizes a species of discriminating tooth-ache, which is probably familiar to the dentists. The singularity consists in the tooth contracting a violent antipathy to coffee.

"Odontalgia post haustum calidum (maximè coffeæ) potum sæviens."

But the 102d and 103d qualities of feverfew are more wonderful. Under its influence the teeth begin to elongate, like the faces of the professors of the old system of physic, and, what is more, they actually stagger.

"Dentes elongati."

"Dentium vacillatio."

We think it would be useless to add to the extraordinary catalogue. We assure our readers that these are not choice flowers, discovered with difficulty and selected with care. They came in our way, and so we plucked them; and any one who wanders through the thickly-planted pages of this curious work, may gather at each turn as extraordinary specimens. It would be idle to eulogize the facts of homœopathy; displaying as they do the brilliant imagination of the homœopathists; in point of ingenuity they appear to us to excel the doctrine. None can, of course, doubt that the new system will soon rise to strength and maturity on the ruins of the ancient errors, of experience, observation, and induction; and, selfish though it may appear, we congratulate ourselves on having discerned its lurking beauties and its infant vigour, at the time when the fools and bigots of the 19th century rejected and despised it.

THE PRINCIPLES OF DIAGNOSIS, VOL. I. Second Edition. By MARSHALL HALL, M.D. F.R.S. L. and E. etc. Octavo, pp. 426. London, 1834.

It is a pity that Dr. Hall has not mentioned in a preface or advertisement of some description, the alterations, additions, or reductions he has made in the present edition. Harassed and perplexed as the critic is by the claims of authors and the multiplicity of books, he cannot be expected to com-

pare editions, and to extricate a few separate grains of novelty from bushels of familiar matter. We would recommend those gentlemen whose merits or whose fortune convey them past the rubicon of a first edition, to signify the changes that occur in all successive ones.

In the present instance we are prevented from doing adequate justice to Dr. Marshall Hall, by our inability to inform our readers of the real quantity of added matter or improved arrangement. But the fact of a second edition being called for, is itself a high compliment to the author and the work, as the latter is one which, for obvious reasons, can only be purchased and appreciated by the profession.

We have on various occasions endeavoured to do justice to the industry and the talent of Dr. Marshall Hall. Indeed, our previous notice of his labours was so full as to prevent us from doing much more than mention the appearance of this new edition, and recommend those to purchase it immediately who have not the advantage of possessing the first. We may glance at Dr. Hall's arrangement before we quit the subject. The work contains four sections. The first is occupied with the history of diseases—the second is devoted to their symptoms—the third is occupied with the effects of remedies—and the fourth is appropriated to their morbid anatomy. The second section is, of course, the longest. It treats in order of the morbid appearances of the countenance—the morbid conditions of the attitude—the morbid appearances of the tongue, &c.—the morbid conditions of the general surface—of some morbid conditions of the general system—of the morbid states of the functions of the nervous system—of the morbid affections of the function of respiration—of the morbid affections of the circulation—of the physical conditions of the thorax—of the functional affections of the alimentary canal—of the functional affections of the urinary organs—of the physical conditions of the abdomen.

Such is our author's bill of fare, and as we cannot praise particular dishes, we recommend the whole. Our readers may taste and judge for themselves. By the way, we may mention that the doctor is about to give oral utterance to these principles of diagnosis. In other words, he is the future lecturer on the practice of physic at the Aldersgate Street Medical School. We wish him all the success he deserves, and that is not a trifle.

IV. A DEMONSTRATION OF THE NERVES OF THE HUMAN BODY. By JOSEPH SWAN. Quarto, pp. 82. Plates, XXV.

We have drawn attention to Mr. Swan's folio plates of the nerves. The four fasciculi of that splendid work do honour to Mr. Swan, and are creditable to the country. The laborious industry that executed the dissections, the patient zeal that directed and superintended the artists, and the graphic powers of the latter, have combined to produce a work unequalled in any period of the history of anatomy for its accuracy and its beauty. Cheap though it is, the actual price must prevent the great majority of the profession from buying it. Young men who want it most, can afford it least, and the older and wealthier members of the profession who are able to afford it, will not, perhaps, be persuaded that they want it. We fear then that the sale of the folio copy will never be extensive.

But the quantity of trashy anatomical plates which fill the market and disappoint and deceive the purchaser, renders it a matter of high importance to circulate good ones at the lowest possible price. Actuated by this laudable desire, Mr. Swan has now published in a qaarto form the plates which are contained in the folio edition. The accuracy of the dissections, and the beauty of the drawings continue unimpaired—the diminished size is scarcely attended with diminished clearness—and the moderate price will enable students of indifferent means to purchase what is really worth their money and their time, instead of unprofitably consuming both in the acquisition and the study of what are neither decent drawings nor accurate charts.

We recommend all and every gentleman desirous of becoming perfectly acquainted with the anatomy of the nervous system, to make himself master of one or other form of these Demonstrations. If he does not enjoy a superfluity of cash, let him stint himself in some less important matter, and parents or guardians may well expend a pound or two in placing the work in the hands of the young aspirant for anatomical distinction.

V. An Essay on the Deaf and Dumb, &c. &c. Second edition. By John Harrison Curtis, Esq. &c. 1834.

We have heard on good authority that in the instances of more than one individual, considered as irremediably deaf and dumb, Mr. Curtis has by strict attention and judicious treatment removed the deafness, and, of course, the dumbness. The facts which have come to our knowledge induce us to recommend practitioners to attend to the suggestions of Mr. Curtis, and in cases of this nature to pause before they doom to a sort of civil banishment, unhappy individuals whom cautious observation and appropriate management might restore to the advantages and pleasures of society. We have only time at present to direct attention to some of the details of Mr. Curtis' work, and to express our opinion that his cases and suggestions deserve consideration.

VI. A Practical Treatise on Lepra Vulgaris, with Cases that have uniformly yielded to the Plan of Treatment laid down, &c. &c. By Edward Beck, M.D. Ipswich. Octavo, pp. 74.

The object of Dr. Beck is to display the obstinacy of lepra and psoriasis—their indisposition to yield to the treatment usually recommended—and the superior efficacy of the plan which he proposes and pursues. Without further preface, we shall state the plan in question.

"When the disease is of considerable standing and attended with much pain, soreness, and inflammation of any one part, a preparatory plan of treatment will be required, which is to be principally antiphlogistic.

I have generally recommended abstinence from wine, and prescribed a few doses of Aperient Medicine; equal parts of Pil. Rhei Comp., and Extr. Colocynth Comp. with or without two or three grains of Pil. Hydr. answer the purpose well. The Sulph. Precip., in combination with Sod. Subcarb. Excis. in doses of half a drachm of the former, to 5 grs. of the latter, two or three times in the day, so as to act freely on the bowels, has a beneficial influence in reducing the irritation. The Liq. Plumb. Subacet. Dilut., or a lotion containing the Plumb. Subacet. in combination with Zinci Sulphas, I have found the best local applications, during the very irritable state of the disease: two scruples of the former, with half a drachm of the latter, to a pint of Distilled Water."

The preparatory plan, therefore, consists of active aperients for some days—the application of the lotion that is found to suit best—and, when much local irritation exists, the use of the powder of sulphur and soda three or four times during the day. Sometimes there is no necessity for a preparatory plan of this description. As soon as the irritation and inflammation of the parts are moderated, the specific treatment is required.

"The specific plan consists in applying the following liniment to the parts affected:—

℞.—Picis Liquid.
Sulphuris.
Adipis Præpar. sing. unciam misce.

The following pills are at the same time to be taken regularly:—

℞.—Picis Liquidæ unciam dimidiam.
Flor Tritici q. s. misce. et divide in Pilul. sing. gr. v.—iii. ad vi. ter in die sumantur.

Where the irritation is very considerable, a milder liniment may first be had recourse to, as the following:—

℞.—Picis Liquidæ.
Sulphuris singul. unciam dimidiam.
Adipis Præparat. uncium. misce.

This preparation, should it irritate very much, may be gently rubbed on the parts affected with the Leprous eruption at night, allowed to remain on a few minutes only, and then wiped off with soft linen. The application usually increases the pain for a few minutes, but afterwards the parts become much more comfortable to the Patient's feelings. In three or four days the former liniment can be borne and will be required, and it may be allowed to remain on the part all night, and be washed off in the morning, or it may be applied and remain on for days together, for it is better that the part should not be frequently washed, as the local irritation is considerably increased thereby. Where a large surface, a limb for instance, is covered with the Leprous eruption, it may be gently rubbed well over with the liniment, and the part covered with linen (in the form of a stocking if it be the leg, or a glove if it be the fore-arm, or back of the hand.) Every second or third day will suffice to apply the liniment afresh. This is a very efficacious mode of applying the liniment, but is adapted only for those in the lower class of society, who might have no objection to the scent of the ointment. Among the upper class of society, this plan might be seriously objected to, in which case the application should be used at night only, and washed off in the morning. But where single patches are situated, some of the ointment should be applied thickly to them, and two or three pieces of lint confined over it, with strips of adhesive plaster—this may be allowed to remain for days together, and no scent can escape if the lint be well confined. Most of the small Leprous spots, which are not of long duration, will disappear under the general plan of treatment, and only an occasional large patch will require this attention for a short time.

As the Pills sometimes occasion head ache and disagree with the stomach at first, they may be commenced with by taking two, three times in the day, and very gradually increased to six, three times in the day, which will be found an efficient dose, and as much as most stomachs will bear well. The torpid state of bowels that almost invariably accompanies Lepra, usually gives way to the use of the Pills.

Where the disease is of short duration, and is not confluent, the preparatory plan of treatment may, in a great measure be dispensed with, both locally and generally.

A single dose of the Pills at night, followed in the morning by a teaspoonful or two of calcined Magnesia, or half an ounce of the sulphate, will be found sufficient; but, without some preparation for the Pilulæ Picis, they will be found to occasion nausea and head-ache, at which the patient, taking an early disgust, will, with difficulty, be persuaded to resume the use of them. In all cases, where the local irritation is considerable, the stronger form of the ointment may, from the first, be had recourse to. After the patient is able to take a full dose of the pills, the use of aperients may, in almost every instance, be discontinued, for the Pil. Picis alone regularly and sufficiently act upon the bowels.

I particularly wish to point out the necessity, where much local irritation is present, of using the milder Ung. Picis Comp., and that it remain on only a minute or two. Without this precaution, the patient may take a prejudice against the application, from the increase of pain it produces, and discontinue it altogether."

Both pills and ointment are necessary to effect a cure, and their use should be continued for some time after the disappearance of the disease. Two months, or even more, will be required for the cure of severe or long-continued lepra.

Our author's treatment of psoriasis is put forward with less confidence than that of lepra. It consists of antiphlogistic treatment while heat and irritation are considerable—aperients—after a few days the application of an ointment, consisting of half an ounce of camphor, and two ounces of cerat. cetacei—and the exhibition of sulphur and soda.

We have no space left for comments, which we leave to the fancy, the judgment or experience of our readers.

II.

SPIRIT OF THE FOREIGN PERIODICALS.

On the Operation of Staphyloraphy.

Although the congenital fissure of the palate does not necessarily affect the health of the individual, it is a malady which causes him much distress, and often destroys the comfort of his existence. Every act of swallowing is a punishment; for the food, especially if fluid, is apt to pass through the cleft into the nasal passages, and be rejected by the nose; and the speech is usually so indistinct, that the unfortunate patient can with difficulty make himself understood.

It is therefore, surprising that surgeons had never made any attempts to remedy this defect, until MM. Graefe and Roux, nearly about the same time, proposed and practised the operation which has been called staphyloraphy. It must be confessed that the operation is one of very considerable difficulty and uncertainty, in consequence of the peculiar susceptibility and disposition of the parts involved. All the manipulations are performed within a contracted cavity, the walls of which, on the slightest irritation, are thrown into irregular and involuntary movements, accompanied with irrepressible efforts of vomiting and cough. The only method of overcoming these, is by endeavouring to accustom the throat, step by step, to the contact of foreign bodies. Even when this has been accomplished, the surgeon may find himself much embarrassed in his attempts to make the section of the cleft palate neat, regular or uniform, and to pass the needles and ligatures through the two sides at the wished-for points, so as to approximate them smoothly and equably. Any feasible proposal to faciliate these desirable ends must be received most gratefully by whoever undertakes the delicate operation of staphyloraphy. M. Berard, of Paris, suggests the following hints, the adoption of which, he believes, contributed essentially to his success in one case. The operation, he says, consists of three stages, viz. the passing of the threads, the paring of the edges, and the tying of the ligatures. The points of the suture, on either side, ought to be exactly opposite to each other; the spaces between them must be equal, or nearly so, and sufficient thickness of substance must be included between any two opposite sutures, to prevent the ulceration of the interstitial parts before the adhesive union has taken place. The contrary error, that of including too great a thickness of substance, may, indeed be committed, and its effects are nearly quite as injurious, causing a most painful dragging of the velum and soft palate, and inducing a troublesome inflammation in these parts. It is, however, to be well kept in mind, that the failure of staphyloraphy is more often attributable to the former than to the latter of these errors.

M. B. strongly recommends that the sutures be made progressively from before backwards, and not in the opposite direction, as some surgeons have proposed and practised. In the second stage or period of the operation, the section ought to commence at the upper border of the velum; for this curtain, being fixed by its adherent edge to the point of the osseous palate, may be kept stretched by the pressure of the bistoury alone: some surgeons prefer scissors to a scalpel for paring the edges—it is, however, to be observed that, with the former, we are more apt to cut the threads than with the latter. When the incisions have been duly made, the next step is to approximate the edges, and to retain them in apposition by tying the ligatures. The most convenient of all "serre-nœuds" are the fore-fingers of the operator, which may generally be conveyed to the requisite depth; in some cases, indeed, considerable difficulty is experienced at this step of the operation, in consequence of the nausea and efforts

to retch whenever the fingers touch the palate or velum; also from the surgeon not being able to see distinctly the parts on which he is operating. M. Guyot has recently invented an ingenious instrument, by means of which he thinks that the surgeon will be enabled to tie the ligatures, without the introduction of the fingers into the mouth. Even after the operation has been satisfactorily concluded, the anxiety of the surgeon is not over, for he knows well the extreme difficulty of keeping the parts quiet and motionless; and, without this favourable condition, he cannot expect a serviceable union. Every effort of swallowing is necessarily attended with some movements of the palate; and although we may endeavour to nourish the system for a few days with beef-tea, enemata, and so forth, the thirst of the patient forces him to be taking every now and then a mouthful of drink, and even sometimes the urgency of his hunger is so intolerable, that he cannot abstain from wishing for food by the mouth.

It has been proposed to introduce food into the stomach by means of an elastic tube, conveyed down the œsophagus: if we intend adopting this method, it will be prudent to accustom the parts to the contact of the tube for several days previous to the operation. It may be useful to detail briefly the history of the case in which M. Berard performed the operation with success. The patient was a man, 27 years of age—he had the scar of the operation for hare-lip—his voice was hoarse, indistinct, and his speech very inarticulate. Upon examining the throat, the velum palati was found to be cleft in its middle—the fissure extended from the uvula to within two or three lines of its adherence to the palate bones; it was about an inch and a quarter in length, and had a triangular shape, the apex of the triangle being uppermost.

The palate itself, the soft as well as the hard, was quite entire. When the parts were in a state of repose, the breadth of the fissure was not more than three or four lines, but no sooner were they thrown into action, than the two halves were immediately drawn so much asunder and upwards, that they could scarcely be perceived. For several days, M. Berard endeavoured to accustom the parts to the contact of foreign bodies, by repeatedly introducing his fingers into the mouth, and touching the parts which were to be the seat of the operation. Three sutures were employed, and great care was employed to insert each of them at about three lines, distance from the loose edges of the fissure. Fortunately, this patient was able to abstain from swallowing any food for five days, nourishing injections being exhibited two or three times daily. The ligatures were removed on the sixth day; by this time, the lower half of the fissure was well cicatrized—the upper portion also adhered, but between these there was a gap, about half an inch long and a quarter broad. The edges of this gap were touched every second or third day with nitrate of silver: they gradually became approximated, and, finally, were firmly agglutinated; but not until two months from the date of the operation. The deglutition and speech of this patient have become much more easy and distinct than they were formerly.—*Archives Générales.*

ON THE CURATIVE EFFECTS OF ABSTINENCE, AND OF A VERY RIGID DIET, IN CERTAIN DISEASES.

The Sangrado treatment has been several times tried and recommended in Italy, France, England, and Sweden, and now our German brethren have adopted it, and are extolling its salutiferous blessings. Rust assures us that he employs it extensively at the Charité Hospital at Berlin, with great good effects; and his disciple, M. Rolfs, has communicated the history of a case, the cure of which was altogether attributable to a "diète méthodique!" The case was one of spinal deformity, accompanied with paralysis of the lower limbs, and occurring in a lad 14 years of age. There was also caries of the ischium, and a fistula in the perineum. Confinement to the horizontal posture for a length of time, and the use of va-

rious remedies, had been tried, without any good effects. Issues had been kept open for several months; but notwithstanding their use, paraplegia had increased so much, that the patient could with difficulty lift either of his legs from the bed.

The "diète méthodique" was then commenced, and the young patient voluntarily submitted to its exactions with great fortitude. One ounce of food was withdrawn each day—no animal meat nor bread was allowed. In the course of three weeks, the whole quantity of food taken in 24 hours was only eight ounces of fresh vegetables, two small cups of milk, and half a pound of grapes. The pulse had fallen from 80 to 48 beats. After other six days, it was found that he had considerably more use of his limbs, and that not only could he raise them, but also that he could stand erect for a few minutes on his feet; nevertheless, they had become considerably emaciated. The hunger was now so ravenous, that he felt almost inclined to catch and devour the flies which settled on his clothes. From this period, the amelioration of all the symptoms was very rapid and striking, for not only could he walk about his chamber, but soon he was able to go out, and in the course of a few months he became an apprentice to a baker. The perineal fistula had quite healed.

Remarks. It is not stated what appearances the spine presented after the cure had been affected; but our readers will doubtless agree with us in believing, that there had, in all probability, never been any considerable disease of the bones, and that the paraplegia might be owing to a slight compression of the spinal cord, from the existence of a serous or other fluid within the vertebral canal. The rapidity of the cure is inconsistent with the presumption of any serious mischief of the osseous structure. One of the most important physiological effects, says M. R. of the "diète" is, that the patient draws a portion of his nourishment from his own flesh and blood, and thus the universal interstitial absorption goes on increasing, just in proportion to the absorption from the surface of the intestines decreases. The superfluous blood is removed, the fat of the body is taken up, and every organ supplies its quota of nourishment to the support of the whole. Although a general emaciation is the consequence of all this, and, although the organs of digestion be comparatively inactive, and the circulation become languid, it is observed that the functions of the nervous system are not depressed in proportion, and that very often they even seem to be exalted. The diseases in which the "diète" is most useful, are threatened miscarriage, hæmorrhages, dairrhœa, and ephidrosis. It is also highly efficacious, we are told, in arresting seminal pollutions, especially if the patient, at the same time, engages in some serious pursuits during the day, and sleeps on a hard bed at night! Syphilis and many cutaneous diseases are often singularly benefited, and sometimes quite banished, by the penance of fasting. Gonorrhœa, too, may very generally be got rid of, in the course of one week, by restricting the patient to the use of mere barley water, and an occasional dose of the powder of cubebs. Some physicians have recommended that small doses of ipecacuan, or of tartar-emetic, be given frequently, with the view of exciting nausea, and thus suspending the desire for food; but Dr. R. assures us that this practice cannot supersede the one which he recommends; for that in order to be of service, the feeling of hunger must be experienced, and that it is this very feeling which is often so extraordinarily efficacious in curing disease, by the state of general excitement which it induces. In conclusion, adds our starving author, it is necessary to animate and support the courage of our patients by painting, in the most glowing colours, the hope of a speedy cure, and by appealing to their honour and fortitude to assist us in the noble object they, as well as ourselves, have in view!! —*Archives Générales.*

We have great doubts that the praises of the "diète méthodique" will ever be sung, or at least will ever be listened

to, with so warm an enthusiasm on this side of the Channel, as in Germany or France. It has the mighty disadvantage of being in direct antagonism (to use a new medical word) with all the inbred notion of our countrymen.—REV.

OPERATION OF PELVIOTOMY. By Dr. GALBIATI.

A rachitic female, about thirty years of age, was admitted into the Hospital of Incurables at Naples, pregnant with her first child, and near the end of her gestation. She was exceedingly deformed, very low in stature, and all the limbs, especially the lower ones, were bent into the most irregular shapes. On examination of the pelvis, it was found that the sacro-pubic diameter did not exceed one inch and a quarter. A consultation was held, to determine on the practice to be followed. Signor G. proposed the operation of pelviotomy, modified in the following respects from the original Sigaultian method: the two ossa pubis to be divided with strong curved scissors or nippers, at about three fingers' breadth from the symphysis; then the ossa ischii, at the posterior part, to be similarly divided; and, lastly, the symphysis pubis to be cut across and separated laterally. "By means of this quintuple section," we are told, "sufficient space may be obtained for the easy expulsion of a fœtus from a pelvis so deformed, that the Cæsarian operation would be deemed quite necessary."

The following are the steps of the operation, as performed by Sig. Galbiati. An incision was made through the soft parts over the right os pubis, and over the region of the posterior, or lower portion of the ischium; these bones were then divided across with pliers—a manœuvre not very easily done, but which, after some delay, was satisfactorily accomplished; a small intermuscular artery required a ligature; the pudic and obturator vessels were quite safe. The next step was to divide the symphysis pubis;—this being accomplished, Signor G. introduced the thumb and fore-finger of his right hand into the vagina, ruptured the membranes of the fœtus, and discharged a large quantity of the inclosed waters. The operation had by this time lasted for an hour and a quarter; and as uterine pains began to come on, the wounds were dressed, and the patient put to bed, and a large opiate was administered. The patient experienced much pain during the night, and occasionally she was delirious. On the following day, the sacro-pubic diameter of the pelvis was found to have stretched at least a third of an inch since the operation; the os uteri had become dilated, and the head of the fœtus had advanced somewhat, squeezed like a wedge between the ossa pubis, and the vast protuberance of the sacrum.

The second day after the operation, it was a question among the surgeons, whether the section of the bones on the left side should now be performed; and it was urged in favour of this step, that sufficient space might be thereby obtained for the introduction of the forceps, and the mechanical extraction of the child, of whose death there were now well-grounded suspicions. The condition of the patient was, indeed, far from being favorable; nevertheless Sig. Galbiati resolved to complete the operation, as he had proposed at first. Having, therefore, cut across the rami of the pubis and ischium on the left side, as he had done the day before on the right, he then introduced the forceps, and extracted, but not without considerable difficulty, a well-formed male foetus, whose appearance indicated that life had ceased for about 24 hours. A belt was applied round the pelvis, and warm fomentations kept to the abdomen. On the morning after the second operation, the patient was found to be in a highly irritable and nervous state; the symptoms became gradually more alarming, the pulse fell, the body became cold, and the poor woman passed "a miglior vita" on the morning of the fourth day after the first operation, and thirty hours after the second.

Dissection. The three first wounds were in a sloughy gangrenous state, bedewed with sanies; the other two

wounds were dry. On dividing the abdominal parietes, all the viscera appeared healthy; the uterus and its appendages presented no morbid signs; when cut through its internal surface was, in every respect, such as might have been expected after a recent delivery. The sacro-iliac synchondroses were in a normal state; the ossa pubis and ischii on the right side were found to have been smoothly cut in their perimeters, or surfaces, and broken through rather irregularly in their substance; but none of the spicula or fragments had injured the surrounding soft parts; the bones on the left side had been more smoothly divided throughout.—The lowest lumbar vertebræ and the sacrum were greatly enlarged, and projected forwards, like a huge round mass, into the cavity of the pelvis, so that the conjugate diameter was exceedingly small.—*Giornale di Ghirurgia, Napoli.*

Such is a brief history of this remarkable case;—remarkable only for the unjustifiable and barbarous boldness of the medical attendants. Really, some of our continental brethren in Italy, and, we may add, in Germany also, seem to regard the body of a parturient woman as a block of wood, on which they may cut, and carve, and chisel, with the utmost coolness. The narrator of the preceding case seems to have been quite puzzled how to account for the death of the patient! He attributes it to "a nervous affection, the result of an imagination over-excited by all the circumstances which preceded and followed the operation!!" He speaks somewhat more like a rational being, when he advises that the operation be completed at once; and that it was highly reprehensible to allow two days to intervene, before the section of the pelvic bones of the left side was performed. But the operation, however modified, ought to be denounced as murder.—REV.

REMOVAL OF CALCULI FROM THE PERINEUM.

A young boy, admitted into the hospital at Naples, presented on examination a prominent swelling of the scrotum; several hard bodies, like calculi, were felt under the integuments. Professor de Horatiis made an incision over the part, and extracted three calculi, of the size of coffee-beans, and a quantity of gravelly matter—the wound speedily healed. It is to be observed, that this boy had previously suffered severe pains in the region of the kidneys; the calculi were therefore probably of renal origin, and being driven along by the current of the urine, had become impacted in the urethra, through the parietes of which they had forced their way.—*Ib.*

DISEASE OF THE CEREBELLUM.—CURIOUS DISTURBANCE OF THE MUSCULAR POWERS.

A middle-aged man was lately admitted into the Hôtel Dieu. The symptoms were feverishness, great debility, confusion of head, and inability to use his limbs, at least freely. There was no abdominal or pectoral distress. When he was put to bed, it was observed that the head was in a state of continual rotation, even when resting upon the pillow;—it was not bent forwards or backwards, but only rolled about from side to side: the muscles of the face were occasionally convulsed, but the mouth was not distorted, nor was the tongue drawn either to the right or left side, although constantly moving with a tremulous agitation. Both forearms exhibited a prolonged convulsive movement along their radial sides, so that the thumbs and forefingers were kept bent; the soles of the feet were turned inwards and upwards; the tendons of the tibiales autici muscles were very prominent, and permanently stiff. The patient seemed to have a complete control over the flexors and extensors of the head; when assisted, he could raise himself up and sit in bed. The movements of the thoracic and abdominal muscles were healthy. The voluntary movements of the extremities were very imperfect; he could not raise his left arm at all to his head, and his right

one only with considerable difficulty. The common sensibility was but little affected in any part; the intellect was confused; he could not answer many questions successively. In the course of a few days all the unfavourable symptoms were aggravated; the trembling oscillation of the head and tongue was incessant; the trunk and limbs lay nearly still and motionless; the forearms were laid across the abdomen, the wrists were bent, and the thumbs drawn into the hollow of the hand, and almost constantly trembling. Every now and then there was a paroxysm of apparently epileptic convulsions, and the patient seemed to recover his sensibility and consciousness for a time, but he soon relapsed into his former stupor. On dissection, the attention of the physician was directed in a special manner to the encephalic contents; and it was found that a tumor, of the size of a small walnut, had formed on the tuber annulare, and adhered to the outer surface of the cerebellum. This tumor was formed of nacreous particles and layers, and belonged to that class of morbid deposits described by M. Cruveilhier as consisting of stearine and cholesterine; —they appear to be quite inorganic, presenting no traces of vessels, or of cellular tissue.—*Archives Générales.*

HYPERTROPHY OF THE MUSCULAR COAT OF THE STOMACH.

This pathological phenomenon has hitherto been almost quite overlooked by anatomists. Neither Morgagni, Haller, nor Baillie allude to it. Meckel, in his Manual, states, in a general way, that in great eaters the muscular coat of the stomach is often thicker than is usual. M. Louis has indeed detailed two well-marked instances of this hypetrophy which he met with; in both, the pyloric orifice was affected with scirrhus; and he was thereby led to regard the former change as the result of the latter. A woman, 49 years of age, of a spare habit of body, had long suffered from mental anxiety, which she vainly endeavoured to subdue by immoderate indulgence in the pleasures of the table; —in course of time the appetite became quite voracious. Her chief malady was a difficulty of breathing, which returned periodically every evening, and was accompanied with the sensation as if a heavy ball was rising from the lower part of the belly to the region of the heart, and there stopped, and obstructed the respiration. These symptoms lasted generally for about six or eight minutes, and then gradually subsided. Each attack became more severe; and at length they sometimes induced delirium. A general emaciation supervened, although the bulimia was not diminished. All the remedies tried to relieve her failed, and she died in the course of a few months from marasmus.

Autopsy. Thoracic organs healthy; omentum almost entirely awanting; liver, gall-bladder, and spleen natural. The stomach was puckered, and evidently much thickened, especially towards the pyloric orifice, and along the great curvature; its blood-vessels were empty; the mucous membrane, coated with a viscid deposit, was thin, transparent, but not softened; its surface was elevated into bold irregular projections, by the subjacent bundles of muscular fibres, extending from the great cul-de-sac towards the pylorus; between these projections were hollows, or depressions; and thus this stomach presented an appearance not unlike to that of the inner surface of the heart. The thickness of some of the muscular fasciculi was at least half an inch. The rest of the alimentary tube was normal. —*Hufeland's Journ. der. Pract. Heilk.*

INFLAMMATION OF THE MEMBRANES OF THE OVUM.

Madame ———, 18 years of age, in the fourth month of her first pregnancy, applied to Dr. Ollivier, in consequence of general indisposition, and of a reddish coloured discharge from the vagina.— The abdomen was not at first tender nor swollen, but severe pain was felt in the region of the kidneys. The movements of the child had not yet been

felt. The uterus could be felt distinctly with the hand placed on the hypogastrium; and if firm pressure was made, a sharp pain was produced. Gently soothing means and absolute rest were enjoined, and after a few days the patient seemed to be relieved, when suddenly the abdomen became enormously distended, and a fluctuation was distinctly perceptible. A sense of uneasiness and weight in the hypogastrium was complained of. Dr. O. was not at all surprised at this change in the symptoms, as he had, from the commencement, regarded the case as one of inflammation of the membranes of the ovum: and he therefore concluded, when the sudden swelling of the abdomen supervened, that the inflammatory process had terminated in effusion. The treatment which he adopted was of the simplest kind, as the general health of his patient was now moderately good. The coloured discharge became less and less, all tenderness of the abdomen ceased, and the movements of the child began to be felt. The pregnancy went on favourably to its full period, and the lady was safely delivered. Dr. O. was then able to verify the accuracy of his prognosis.

It may be noticed, that during the labour, and before the head was protruded externally, there had escaped suddenly a tumor or pouch as large as a man's fist, formed apparently by the fœtal membranes, but of the thickness and consistence of softened parchment.—As labour advanced this pouch burst, and discharged the amniotic fluid.

On examination of the after-birth and membranes, he found that these last were, for about one-third of their extent, considerably thickened, opaque, and of a whitish colour, villous on their internal surface, and, in short, altogether like to parchment which had been long steeped in water. All the thickened portion was traversed by minute vessels, and these were more distinct as they approached the placenta.—*Arch. Générales.*

CASE OF FATAL OPISTHOTONOS, TO WHICH ARE APPENDED SOME PHYSIOLOGICAL REMARKS.

Dr. Bellingeri, with whose work on the functions of the nervous system our readers are made acquainted in a preceding part of the present number, is the narrator of the case. A country girl, thirteen years of age, whose health had been very generally good, in spite of a considerable bronchocele, began about the middle of last year to experience a pain in the left shoulder, which extended towards the neck, and was especially severe over the larynx; the neck became stiff, and occasionally she complained of pain in the occiput, and difficulty in moving the lower jaw.—These symptoms she attributed to having slept in a damp chamber. Although troublesome, they did not seem to disturb her general health, as she eat and slept well, and was able to go about as usual. It deserves, however, to be noticed, that the act of swallowing was not quite easy;—she felt as if the food was partially obstructed in its descent. In the course of a day or two, she experienced sharp pains along the whole extent of the spine, and a sense of dragging in the lower extremities. Two days after, the lower extremities became rigidly drawn backwards; and in other 24 hours, the head, neck, and trunk were similarly affected. The sharp, darting pains in the occiput and along the spine were as severe as hitherto. Venesection and oily purgatives were employed, and leeches were applied to the back. For five days, the tetanic symptoms continued in all their severity; and so powerful was the opisthotonos, that the body of this poor sufferer formed a complete arch backwards. The rigidity of the spasm was strongest in the lower extremities;—so stiffly were they drawn backwards, that they could not be brought into a straight direction, even when considerable force was used. The power over the upper extremities was not completely lost, the patient being able to move them about in some directions; but the movements were limited and also painful. The pupils were observed to be con-

stantly contracted, and seemed to be little or not at all affected by light; the sense of vision and the hearing were not however disturbed. The alæ nasi and the upper lip were drawn upwards, and the patient could only imperfectly close the mouth: indeed every muscle of the face seemed to be more or less affected with spasm. In no part was the common sensibility affected. The pulse was contracted, and beat about 104 times in the minute. The abdomen was so stretched that its surface was as flat as a board; for four days no alvine evacuations had been obtained; and it was found that considerable spasm of the sphincter ani and of the rectum existed, when attempts were made to throw up enemata. The urine was voided voluntarily and at intervals; but she had not the power of retaining it; for whenever the desire came on, she was obliged to yield at once to it. The heat of the body was rather higher than in health; and the skin was always gently moist.

Dr. B. saw her for the first time on the ninth day after the commencement of the disease, and found the symptoms then as we have described. He tried the effects of bleeding from the jugular vein, in consequence of the patient complaining of a distressing constriction in the throat. After about nine ounces had flown, a sense of suffocation came on, and the face became livid; the bleeding was immediately stopped, and in the course of a few minutes the breathing became more easy; but again the paroxysm returned with more alarming severity, and the patient died, apparently asphyxiated, from a spasmodic closure of the rima glottidis. A short time after death the left arm was drawn backwards. For twelve hours the rigidity and distortion of the head, neck, trunk, and lower extremities continued, although the body was then quite cold; in other twelve hours these appearances had ceased, and the joints were pliant.

Dissection. On the posterior surface of the spinal cord, between the third dorsal and the first lumbar vertebræ, and externally to the investing dura mater, there was a bloody exudation; it was truly an exudation and not a mere congestion. When the dura mater was slit open, a state of very high injection of the minute capillary vessels on the pia mater, which invests the posterior surface of the medulla, extending from opposite the ninth dorsal vertebræ to the extremity of the cord, or cauda equina, was most strikingly apparent to all the medical men who attended the examination. The pia mater which invested the posterior surface of the rest of the spinal marrow was similarly, but in a less degree injected; the injection was most conspicuous at the medulla oblongata. It is to be observed that the appearance now alluded to was limited to the posterior surface of the medulla; it was not seen on the lateral surfaces. On the anterior surface the cellular tissue which lies between the vertebræ and the dura mater, and this membrane itself were very highly injected, (even more so than on the posterior surface) along the whole extent of the spine. When the dura mater was slit open, the arteria spinalis media was found engorged with red blood, and many of its branches, especially at the lumbar region, were in a similar state. The injection which existed on the posterior surface of the medulla was confined to the pia mater: the substance of the medulla itself throughout was altogether natural.

Cranium. There was a slight sanguineous transudation between the dura and the pia mater; this latter membrane seemed highly injected at several parts; the thalami optici, corpora striata, and corpora quadrigemina were healthy; but the choroid flexus was much engorged. The pia mater which invests the cerebellum, pons varoli, and medulla oblongata was highly injected over its whole extent; but the substance of those parts themselves appeared to have not been affected.

Abdomen. Several portions of the intestinal tube were of an unusually deep red colour; a number of lumbrici were found within.

Physiological Considerations. As in the preceding case, the engorgement affected chiefly the pia mater which in-

vested the anterior surface of the tuber annulare, and the posterior surface of the spinal cord, we can at once understand why the spasm assumed the form of general opisthotonos, accompanied with trismus and dysphagia. The anterior surface of the tuber is formed by fibres issuing from the cerebellum; and when these fibres are irritated, they cause spasm of the extensors of the head and neck, trismus, and a spasmodic constriction of the fauces and pharynx. The rigidity of the arms, and the painful difficulty which the patient experienced in attempting to bend them, indicated a spasmodic irritation of the extensor muscles.

The opisthotonos of the trunk proceeded from the congested state of the posterior surface of the dorsal medulla spinalis; and the permanently rigid extension and retro-duction of the lower extremities were owing to the disease having extended to the lumbar portion of the medulla; and the reason of the cramps having been more violent in these than in the upper extremities, is no doubt to be sought for in the more highly congested state of the lumbar, than of the cervical portion. The phenomena of the case are quite in harmony, says Dr. Bellingeri, and indeed corroborate the doctrine, that the cerebellum and the posterior columns of the medulla spinalis preside over the extensor muscles of the body, and do not at all influence the flexors. The absence of any disturbance of the sensibility is to be attributed to the immunity of the substance of the medulla from disease. The history of the case shews that an irritation acting upon the white, or medullary substance, causes spasm, and does not affect the sense of touch; also, that the posterior column of the spinal cord, and the nerves which issue from it, are not to be considered as simply sensory organs, as Bell and Majendie suppose; indeed, the sensibility was little or not at all affected in this child.

Such are the speculations of M. Bellingeri. This is not the place, nor have we at present the disposition, to dispute them. We therefore let them pass for what they are—his opinions.—*Rev.*

Pathological Considerations. The vermination is probably to be regarded as the occasional cause which had excited the latent, or masked enteritic affection. Broussais has very justly remarked that diseases of the encephalon and of the spinal marrow are often sympathetically or secondarily induced, by inflammatory or irritative affections of the alimentary tube; the reverse of this position also is equally true. Admitting the correctness of the opinion, that the nervous was consecutive to the enteritic disease, we are led to account for the more marked congestion which was found at the tuber and medulla oblongata, to the more intimate sympathy, and the more immediate connexion which exists between those parts and the abdominal viscera, by means of the great sympathetic nerve. We can also understand how the morbid action may be propagated to the posterior surface of the spinal cord; no doubt in consequence of the numerous communications between this (the sympathetic) nerve, and the posterior fasciculi of the spinal nerves. From these considerations, it must be apparent, how necessary in medical practice it is to have our attention most diligently directed to the state of the primæ viæ, in all affections either of the brain or of the spinal cord.—*Annali Universali di Medicina.*

CANCEROUS ULCERATION OF THE NOSE TREATED WITH CREOSOTE.

A young man, 17 years of age, reported that about a year and a half before his application to M. Graefe, a pustule formed on the lower margin of the ala nasi; that he scratched it off with his nail, but that it speedily formed again, and extended, giving rise to an ulceration which eat away all the pinna, and part of the apex of the nose, and attacked also the lower lip; the ulcerated surface discharged an ichorous offensive matter. M. G. when he first saw this patient, discovered, upon looking into his mouth, that on the right side of the palate also there were seve-

ral small ulcers of a very unhealthy appearance. A variety of remedies had been tried by different surgeons; but the disease had baffled them all. M. G. considered the case as well adapted for a trial of the creosote; he touched the surfaces of the sores in the throat, as well as on the nose, with a pencil dipped in creosote water, and introduced into the right nostril a dossil of lint wet with it. The application caused a slight burning sensation. It was used once daily: on the fourth day, the surface of the ulcer on the lip was observed to be quite dry, and to be covered with a reddish-brown crust. Upon removing this, a few drops of blood flowed from the raw surface. The creosote water was, however, immediately re-applied—the crust was again formed within 24 hours, and again removed. This treatment was continued for four days, and, at that period, the appearance of the sores was decidedly much improved; the surface was no longer fungous, but dry, and, as it were, mummified; the lower margin of the ala nasi exhibited a point of cicatrization, and this sanative process advanced gradually during the ensuing fortnight. M. G. now applied the pure creosote, in place of its solution in water; the pain caused by the application was very smart and pungent; but it did not last long. On the morrow, the crusts were found to be more strongly adherent, and considerable difficulty was experienced in attempting to remove them. The application of the pure oil was continued regularly once a day; and so satisfactory was the progress made under its use, that, in the course of another fortnight, almost the whole extent of the ulcer on the nose and lip was cicatrized. A very small portion remained in a state of suppuration at the date of the report.—*Journal fur die Chirurgie, &c.*

The English reader will scarcely fail to notice, that this was an instance of lupus. Various stimulating and escharotic ointments or washes have sometimes succeeded, and more often failed, in healing this obstinate species of ulceration.

ON THE EMPLOYMENT OF SOOT, AS A SUBSTITUTE FOR CREOSOTE.

M. Bland, physician to the Hospital de Baucaire, was led, by analogical reasoning, to believe that soot might probably have similar effects, as an outward application, to the newly-discovered substance, creosote. The preparation of this (creosote) is not only very expensive, but is extremely uncertain and troublesome; it is obtained by the dry distillation of organic substances. Now it may be observed, that the combustion of fuel (wood), in our grates, is an every-day rude exemplification of the same process; the former, indeed, goes on in closed vessels, and the product is, therefore, more simple and pure; but there can be little doubt that the same constituents are present in the heterogeneous soot of our chimneys. M. Bland communicates the results of his practice in the following reports.

CASE 1. A boy, 14 years of age, had been affected, for eight months, with the "herpes squamosus lichenoides" on the chin and lower lip. This dartre presented the appearance of a large grey-coloured crust, hard, and very adherent to the skin, which was stretched, painful, and deeply chapped. The disease had resisted a variety of remedies. He was ordered to use a lotion (made by boiling two large handfuls of soot in a pint of water for half an hour, and then strained) four times a day. Within a fortnight, the cutaneous affection was cured, and the skin had recovered its natural colour and pliancy.

CASE 2. A younger brother of the former patient had, for a year and a half, laboured under a most troublesome "tinea favosa," or "favus vulgaris," which had spread over the whole of the hairy scalp. Thick, yellow, honeycomb crusts covered the diseased surface, and a most disgusting smell proceeded from it. He was ordered to have the hair cut close, and to apply bread and water poultices for a few days, in order that the crusts might be detached. When this was effected, the

soot wash was to be used frequently in the course of the day. On the fifteenth day after the commencement of this treatment, the disease was quite subdued. The application did not cause any pain.

Case 3. A soldier, 22 years of age, had for two years been affected with an "eruption crouteuse" (impetiginous?) on the mucous membrane of the nostrils, which had obstinately resisted all the methods of treatment which had been tried. When admitted into the Hospital de Baucaire, on the 21st of last March, the nose was swollen, indurated, and painful on pressure—the upper lip also was swollen—the edges of the nostrils and the mucous membrane, for some extent inwards, were so covered with thick, yellow, honeycomb-like crusts, that the patient could with difficulty breathe through the passage. He was ordered to steam and bathe the parts frequently with the soot lotion, and in the intervals to apply an ointment, composed of an ounce of soot and an ounce of lard. By the fourth day of the following April, the cure was pronounced complete.

Case 4. *Diptherite.* A young soldier had been affected, for a fortnight, with numerous small and very painful ulcerations on the gums, and on the inside of the cheeks. The gums were soft, ulcerated, and fungous—they were covered with a grey-coloured, fetid, pseudo-membranous layer, which separated in irregular portions; the slightest pressure caused the gums to bleed. This patient was cured in the course of three days, by using as a gargle the decoction of soot.

Case 5. *Cancerous Ulceration of the Breast.* A woman, 64 years of age, whose catamenia had already ceased for 15 years, applied to Dr. B. under the following circumstances. There was an ulcer four inches long by three in breadth, and about two in depth, occupying the right mamma; the margins of the sore were hard, knobby, irregular, and everted, of a pale red colour, and exhibiting here and there yellow-coloured points; the discharge was ichorous, and most abominably fetid: the pain which this patient experienced was excessive, and had deprived her of sound sleep for upwards of six months; her health had consequently suffered much, and she was evidently falling into a state of marasmus. She reported that, five years previously, she perceived a hard, moveable tumor, of the size of a walnut, in the substance of the right mamma—that this tumor gradually enlarged, so that, in the course of two years, it was as big as a hen's egg—that, at this period, she began to feel darting pains through it; these were at first slight and intermitting, but they became progressively more and more severe, and at length insufferably agonizing. The nipple was retracted so much as to be scarcely recognizable, and the surface of the mamma was covered with numerous varicose veins, which had occasionally burst, and discharged a quantity of blood. [It is not stated at what period the integuments had given way, and the ulceration had commenced.—Rev.]

The soot lotion was ordered to be applied frequently, and, in the intervals, the sore to be dressed with an ointment, composed of two ounces of lard, two of soot, with two drachms of the extract of belladonna. The patient experienced a most soothing effect from this ointment. In eight days, the size of the ulcer had diminished by two-thirds; the edges had become soft, pliant, and depressed; the fœter of the discharge was corrected, and the surface was covered with numerous healthy granulations. In the course of another fortnight the cure was complete.

Case 6.—*Cancer of the Uterus.* A woman, between 60 and 70 years of age, began, two years after the cessation of the catamenia (which took place in her 50th year), to experience a sensation of distressing weight in the genital organs; this was followed by a leucorrhœal discharge, not constant, but recurring at intervals. These symptoms continued unrelieved for several years, without materially affecting the general health; but gradually the sense

of weight increased, and it began to be accompanied with sharp lancinating pains within the vagina, and with difficulty in discharging the urine and fæces. When she applied to Dr. B. in December, 1833, the following is the report of her condition. Almost constant darting pains felt within the vagina, from which there was a bloody, fetid discharge—intolerable pain in the left groin (no swelling, nor even redness, was to be perceived there)—shooting to the left hip and thigh; the effort of relieving the bladder and rectum most painful, violent, and often quite ineffectual, so that the urine required to be drawn off, and emollient enemata to be given, for the purpose of soliciting the alvine evacuations—a sensation of icy coldness in the loins—utter want of sleep—anorexia—great debility, and general decay. Manual examination at once detected the existence of a large ulcer, occupying the cervix uteri, which felt hard, irregular, and tuberculated—the ulcer was nearly three inches in extent, with scirrhous, everted edges. The patient had consulted Professor Lallemand, of Montpellier, who had advised anodyne injections, and the free use of conium, opium, aconite, and other medicines of the same class; but the relief thus obtained was very small.

Dr. B. ordered the frequent use of the soot lotion, as an injection, on the 11th of March. By the 18th, the characters of the ulcer were decidedly improved, and he then recommanded the ointment (as in the last case) to be applied in the intervals. Considerable difficulty was experienced in employing these remedies: with the view, therefore, of assisting their operation, he endeavoured to fumigate the elevated surface with the steam of a strong decoction of soot, introduced by means of a funnel, having a curved pipe. On the 22d of the month, the progress already made was most satisfactory; the edges of the sore had lost much of their hardness and inequality—the tumefaction had considerably subsided, and the fissures or rhagades had disappeared—the pain also was greatly abated; the patient was able to void the urine and fæces with much less difficulty, and she had obtained more quiet sleep than for a long time previously. On the 10th of April, the ulceration was quite healed; the uterus had shrunk so much, that it was not easy to reach it with the finger, but, when it could be felt, it gave the impression of a hard and scirrhous mass. The finger, when withdrawn, was not covered with the ichorous discharge, as hitherto. M. Bland saw his patient a month after this date, and he then satisfied himself, by a most careful examination, that the part of the uterus accessible to the finger had lost much of its induration and diseased feel, and had recovered its normal consistence and pliancy—the cervix uteri had been almost quite destroyed by the ulceration, and even part of the "bas fond" of the womb; of this M. B. was made sensible by the remarkable depression, or groove, formed at the lower part of the cicatrix. This cicatrix felt to the finger like a round bag, closed by a piece of cord.

CASE 7—is that of a middle-aged man, who was affected with an obstinate "herpes præputii." The glans and inside of the prepuce were covered with numerous pustules, from which oozed out a fluid, which thickened into soft yellowish crusts; the itching was intolerable, so as to deprive the patient of sleep. The disease was quite cured, in five days, under the use of the soot lotion.

CASE 8.—*Herpes Squamosus Lichenoides.* A woman, aged 49, had for 12 years been suffering from a dartre, which formed a crust, from four to six lines in thickness, on the upper part of the left cheek, and on the left side of the nose; the surface was deeply chapped, and from the fissures there escaped a sero-purulent matter: the itching was exceedingly distressing, and when the patient rubbed the crust off, the skin underneath was found to be red, granulated, and dotted with numerous yellow points, from which the discharge began to ooze out: the edges were surrounded with an areola of a bright red colour, and the lower eyelid was everted and dragged so much inwards, as

to expose its inner surface, in consequence of the tension of the skin. The crusts were first softened with bread and water poultices, and when they were detached, the use of the soot lotion and ointment was commenced. In between three and four weeks, the dartre on the cheeks was almost completely cured, only one long chap remaining—that on the nose, however, was not much changed. In other three weeks, the only trace of the dartre on the cheek was the formation of a thin, yellowish pellicle, not rising above the level of the skin, and adherent to the surface of the cicatrix; the dartre on the nose was diminished in extent, but its surface was still granulated, and of a yellow colour. Ten days after this date, the report states that the cheek was now, to every appearance, quite sound, and that the disease on the nose was advancing most rapidly to a healthy cicatrization.

Case 9.—*Herpes Squamosus Scabioides, of 40 Years' Standing.* P. B. aged 60, of an apparently sound constitution, and who had enjoyed exceeding good health on the whole, had for the last 40 years been annoyed with a large, dry, squamous dartre over the whole of the front of both legs, from an inch below the knees to the neighbourhood of the ankles. It was attended with a most troublesome itching, and had resisted most obstinately every plan of treatmeat. On the 10th of May of the present year, he applied to M. Bland, who ordered him to take a tepid bath or two, for the purpose of softening and separating the scales, and then to rub all the affected parts with the soot ointment. On the 16th, only a few isolated pustules were to be seen over the larger surface which the dartre occupied; in the intervals between these, the skin was of a faint red colour, and was beginning to assume a healthy aspect.

[The progress of this case is not related.]

The other successful cases recorded by M. Bland need not specific allusions, as they are analogous to some already quoted. It may be mentioned that he has derived most pleasing effects from his remedies in pruritus genitalium, and in genuine psora, or scabies. Afraid, no doubt, of the incredulity of his brethren, our author has done well to acknowledge, that he has failed to obtain any curative results in some cases; as, for example, in one of cancerous ulceration of the nose—in one of cancer of the mamma (although, in this case, the soot lotions had the effect of stopping the discharge, and causing the surface of the sore to become dry) —and, lastly, in a chronic ulcer situated on the back of the left hand; the suppuration was, indeed, quickly dried up, but the fore-arm thereupon began to swell, and to become painful and inflamed; these symptoms were at once relieved by omitting the use of the lotion, and by the consequent recurrence of the discharge.—*Révue Médicale.*

The preceding memoir we have given at considerable length, as the author's character stands honorably with the profession. We fear that his success has been too great. How much it is to be regretted that the nomenclature of cutaneous diseases adopted in France is so unmeaning.—Rev.

Ophthalmia treated with Lotions of Corrosive Sublimate.

M. Bally, in a paper published by him a few years ago, in the Gazette de Santé, strongly recommended the employment of a solution of the oxymuriate of mercury in ophthalmia, whether of an acute or of a cronic character. The following two cases are adduced, as confirmatory of its good effects.

A woman was seized, after exposure to alternate heat and cold, with a violent inflammation of the conjunctiva of the left eye. The organ was exceedingly painful, and could not tolerate the impression of light—she felt as if sand had got in between the lids and eyeball, and the tears were hot and burning. The disease had lasted six days, when this patient consulted M. B. who ordered her to bathe the eye, a do-

zen times at least in the course of the day, with a collyrium, composed of four grains of the sublimate and four ounces of water. In the course of three days, the inflammation had almost entirely disappeared, and by the sixth the woman was pronounced cured.

In the second case, the ophthalmia had continued for eight weeks before the patient consulted M. B. He had been repeatedly leeched, blistered, and also well physicked, but without much benefit. Both eyes were inflamed; and on the cornea of the right one there was a nebulous spot, of the size of a millet seed;—this eye was more painful than the other, and the sight was more imperfect. M. B. immediately ordered the use of the sublimate collyrium, and a blister on the nape of the neck. No change was made at any time in the treatment; by the 13th day, all inflammation had disappeared from both eyes; the speck however remained; but, fortunately, this also vanished under the application of the "pommade de Janin," and the vision was completely restored. The author adds, that he could cite at least twenty other cases of ophthalmia, treated successfully by the same plan.—*Revue Médicale.*

USE OF CHLORURET OF LIME IN BLENORRHAGIA.

M. Graefe, of Berlin, was among the first to employ this remedy in inflammatory discharges from the urethra; and so favourably did he augur of its good effects, as to state that it would cure the disease when copaiba and cubebs had failed. It was used both internally, either in the form of mixture or of pills, and externally as an injection: the formula for the pills is as follows:—Take of the chloruret one drachm, of extract of opium nine grains, and as much gum as may be necessary to form a consistent mass, which is then to be divided into 54 pills. At first, one may be taken every two or three hours; and the dose is to be gradually increased till eight, ten, or twelve are taken every hour. The injection is made by dissolving 24 grains of the chloruret in six ounces of water, and adding half a drachm of the vinum opii. The strength must be regulated according to the irritability of the canal. This treatment has been successfully adopted in acute as well as in chronic cases; but it is in the latter set chiefly that the greatest benefit has been obtained. As a matter of course, if the irritation produced exceed certain limits, we must omit the use of the chlorurets, and resort to a more soothing treatment. In one patient, who had had a gleet for two years, the discharge was stopped in the course of ten days.—*Trav. de la Soc. Med. de Bourdeaux.*

Our continental brethren discover so many successful remedies, that we wonder how any incurable or obstinate diseases remain. The chloruret of lime may vanquish gonorrhœa in the practice of M. Graefe, but we regret to say, that the English malady refuses to submit to its potent influence. In other words, we have seen it tried for female and for male discharges. It is rather better in the form of an injection, than mere cold water.—REV.

OBSERVATIONS ON THE SECTION OF THE TENDO-ACHILLIS IN CASES OF CLUB FOOT.

M. Stromeger, surgeon to the King of Hanover, has the merit of having first experimentally proved, that the division of the tendo-achillis is often by far the most efficacious mode of treating this deformity.

Several cases have occurred to him, in which it has been performed since the date of his last report; and the following contains the substance of a communication from him to the Archives Générales, in the month of June. H. Leging, a boy seven years old, had been affected with club-foot in both extremities since birth. By the uninterrupted use of appropriate bandages, the deformity had been somewhat corrected, especially in the left limb.—When brought to M. S. the edge of the right foot was found to be strongly

turned inwards, the point of the foot directed downwards, and the limb throughout to be considerably emaciated. When he walked, he rested upon the fibular edge of the foot, and his gait was consequently difficult and ungraceful. The voluntary movements of the foot were very imperfect and constrained; but the member was readily brought into a correct position by very gentle traction. The circumstances of the boy's parents being unfavourable to the tedious treatment of such an affection by means of splints, &c. applied for a length of time, M. Stromeger recommended that the tendo-achillis should be divided, for the purpose of equalizing the action of the flexor and of the extensor muscles, between which two sets of muscles the normal antagonism had never duly existed.

The operation was performed on the 26th August, 1832; in five days the outward wound had cicatrized, but the extension of the limb was deferred for other three days, as the cicatrix remained somewhat tender. The foot was then easily brought into the proper position, and there retained, by "une extension croisante." for three weeks—the angle which it formed with the leg was about 70°. The apparatus being then removed, M. S. found that the substance intervening between the cut ends of the tendon was shorter than he had expected; it was not more than a quarter of an inch long, and was much thinner than the tendon itself. The foot, for a few hours, was retained in a correct position; but then it was gradually drawn into the former faulty direction, notwithstanding the use of a shoe, provided with a steel rod on the outer side. The condition of the boy was therefore not at all mended; and M. S. was anxious to repeat the operation; but to this the parents of the child would not accede.

The failure in this case is to be attributed to the delay of commencing the extension of the limb. By the eighth day, the adhesion between the two cut ends of the tendon had acquired too much strength.

Case 2. H. Linse, 13 years of age, has laboured under club-foot, on the left side, for nine years. No satisfactory cause could be assigned for its occurrence. No treatment had been followed in this case, and the condition of the boy was gradually becoming worse. In August, 1833, he was taken to M. Stromeger for advice. At this time, the act of walking was so difficult and painful, in consequence of the tender state of the outer edge of the foot, on which all the pressure was made, that he seldom ventured out. The toes, and more especially the big one, were drawn strongly inwards, the tendon of the flexor longus pollicis being in a state of constant and powerful tension. It required, therefore, considerable force to bring the foot into a straight direction.

M. S. deemed it expedient to divide the tendon of the flexor pollicis in the first place;—this he did by introducing the point of a knife behind the tendon on the inner edge of the foot, midway between the heel and the great toe. The limb was allowed to remain quiet for three days; and it was then fixed in an apparatus fitted to keep up a constant extension. In the course of a week, there was a very decided improvement in the direction of the point of the foot; and now the section of the tendo-achillis was performed. A splint and bandages were applied. The outer wound was healed by the fifth day, and extension was then commenced. In ten days, the foot formed with the leg an angle of 70°. The apparatus was not removed till the end of the fourth week after the operation; and then the boot, which Dr. S. recommends, was substituted, and a continued extension ordered to be kept up during the night. The young patient began to walk with great ease, and was permitted to go out for a short time on the third day, after the removal of the apparatus. The cure was progressive, and eventually complete.

Case 3. Ferdinand West, nine years of age, had club-foot of the right side at birth. By constant attention, the condition of the little patient had been prevented from becoming worse. When

five years old he was taken to Dr. Stromeger, who recommended the use of a peculiar apparatus, by means of which the foot was brought into and retained in a straight position. The use of this was continued for five months; and after that time, Dr. S. lost sight of the boy for the next four years. When again brought to him for advice, he found that the state of the foot was nearly the same as when he had last seen him, and the walking was even more difficult, in consequence of the pain which it occasioned. The dorsum pedis formed quite a convex arch, the toes being pointed down, and drawn in towards the heel, with the exception of the big toe, which was drawn upwards. The division of the tendo-achillis was performed on the 10th of January; the wound being healed in five days, the extension was commenced, and continued uninterruptedly for four weeks; the boot was then substituted, and the child permitted to walk. The facility with which he did this was most satisfactory. As the point of the foot was, however, still drawn inwards by the action of the flexor longus pollicis, Dr. S. divided the tendon of this muscle, and three days afterwards the tendon of the extensor pollicis: the foot was replaced in the apparatus, and the great toe forcibly drawn forwards. In a week after this operation, the patient was allowed to use the boot. The section of the tendons of the chief muscles of the great toe, so far from paralysing its movements, had caused them to be more easy and free of execution; and the limb gradually acquired greater strength than it had before.

Case 4. Mademoiselle B., 19 years of age, had laboured under scrofulous disease in her early years, and had at one time lost the use of both her limbs. This paralysis had gradually ceased, but had left behind great weakness of the right extremity, the foot of which became contracted. The expedients which had been resorted to for the cure of this deformity had failed. When she consulted Dr. S. he found that the dorsum pedis was much arched downwards, so as almost to obliterate the hollow of the instep; the inversion of the foot was not considerable. The point d'appui in walking was the outer edge of the metartasal bone of the little toe. The heel of the boot which she wore required to be between four and five inches high. It was not easy to bring the foot into a correct position, even when considerable force was used. The tendo-achillis was divided on the 11th of March; on the 16th the continued extension was commenced.—Three weeks after the operation, the foot formed with the leg an angle of 70 . The apparatus was then exchanged for a boot, provided with a steel rod on the inside; and the young lady began to take gentle exercise. The act of walking was at first extremely difficult and painful, but by degrees became more easy and perfect; and at the date of the report, she had gained almost completely the healthy use of the limb. —*Archives Generales.*

We give this memoir as we find it. We do not pledge ourselves to the opinions expressed by the authors in these foreign articles. Absence of criticism must not be considered as actual assent.

CASE OF SPONTANEOUS DRY GANGRENE, CURED BY BLEEDING.

A countryman, 40 years of age, admitted into the Hotel Dieu, presented in the hands and feet that rare variety of gangrene which some authors have denominated "white gangrene." The fingers were pale and of an icy coldness; the second and third phalanges were wasted, and, as it were, mammified; the form of each finger was conical or fusiform; the nails were puffed out and had a chalky appearance; the skin round their bases was slightly ulcerated. The last phalanges were completely insensible; in the others, the patient felt a sense of formication and extreme cold; he had no power of moving the fingers; the skin was white and dry like parchment, and emitted no gangrenous smell. The appearance of the feet was nearly similar to that of

the fingers; presenting the same icy coldness, the loss of all voluntary motion, and the absence of pain. The ears, nose, and lips of this man exhibited a remarkable deficiency of their usual warmth and colour. The action of the heart was vigorous, but rather irregular. The other functions of the body were in a normal condition: the patient said that he felt very well inwardly, and that his only reason for coming to Paris for advice was, that he had been unable to use his hands at any work for the preceding four months. The previous history of the case, as far as it could be well gathered from the patient's account of himself, was as follows.

The disease had commenced four years ago, but had varied a good deal in intensity at different times, according, to the season of the year; alternately abating and increasing. It was generally worse during the heats of Summer, especially when the patient was exposed to the direct action of the sun. During the first years, this species of glacial torpor, or asphyxia, did not last beyond a few days; the fingers however did not regain at any time their natural warmth and flexibility.

No satisfactory cause could be assigned for this singular disease. Rigid enquiries were made respecting his food, but nothing satisfactory could be ascertained to account for it. His occupation had been that of a thresher of corn. His general health had been, as already stated, perfectly good.

M. Dupuytren, regarding the disease as an inflammatory affection of the arterial capillaries, akin in its nature to what takes place in the gangrena senilis, resorted to the same mode of treatment, which he has been in the habit for many years past of employing so successfully in the latter species. The patient was bled from the arm, poultices were applied to the parts, and a moderate diet enjoined. In the course of eight days, the heat, colour, motility, and sensibility of the hands and feet were restored, as if "par enchantement." The patient was advised to have recourse to the same treatment, if the disease should ever return—*Revue Med.*

HYDRO-BRONCHOCELE OR HYDROCELE OF THE NECK.

A man 50 years of age, entered the Hôtel Dieu, for the purpose of having a tumor, which impeded his breathing, removed from the front of the neck. It was of the size of an orange, situated between the os hyoides and the thyroid cartilage; the superjacent skin was healthy; a distinct fluctuation might be perceived. A finger, passed deep into the mouth, could feel the base of the tumor, behind the tongue. The breathing was sometimes so obstructed, that he was in constant dread of being suffocated; and his speech was so affected that he could only with great difficulty pronounce any long word.—M. Dupuytren plunged a bistoury into the most projecting point of the tumor, and discharged a large quantity of a thick, yellowish-coloured fluid; the incision was enlarged to the extent of an inch and a half, and when the cyst was well emptied of its contents, some lint spread with simple ointment was introduced into its cavity, with the view of inducing a certain degree of inflammation, in the hopes of obliterating it altogether. The progress of this case was quite satisfactory, and the patient was relieved of an annoyance which had afflicted him for a great number of years, and which of late had seriously affected his health.

Reflections. Hydrocele of the neck, of which the preceding case furnishes a good example, has often been stupidly confounded with some varieties of genuine bronchocele. Foderé has fallen into this mistake in his treatise on the goitre. It is quite true indeed that the thyroid gland becomes sometimes degenerated into a morbid structure, made up partly of cysts, which are filled with fluid; but such cases are quite distinct from the disease, to which the term "hydrocele of the neck" has been, and ought to be, applied.

The latter disease is a simple encysted watery tumor, and may very generally be cured in the manner above described; whereas the encysted bronchocele is a much more intractable disease, in con-

sequence, no doubt, of the other morbid structures which are co-existent.

The only danger attending the incision of, and attempts to obliterate encysted tumors of the neck, arises from the hazard of the inflammation excited in the sac being propagated to the air-passages.

The auther who first accurately discriminated and described this disease is M. Maunoir of Geneva. He pointed out the analogy between hydrocele of the tunica vaginalis of the testicle, and the watery encysted tumors in the neck. He tried the effects of injecting stimulating fluids into the sac, after the withdrawal of its contents; at first he reported favourably of his trials, but he has since changed his opinion, and he now positively denounces the practice as generally inefficient, and sometimes highly dangerous: in one case, dreadful pains, convulsions, trismus, and diffused abscesses were the results of the experiment, and the desired object was not attained; for the disease returned after these alarming symptoms had been subdued. He does not approve of Dupuytren's method, but recommends that, in all cases, the seton is to be preferred, assuring us that its use has been eminently successful in his practice. Six or eight weeks are generally sufficient for the cure.—*Révue Médicale.*

PARALYSIS INDUCED BY THE PREPARATIONS OF LEAD.

In every one of 17 cases of this disease, observed by M. Tanquerel, the paralysis affected the upper extremities—in five only were the lower limbs affected at the same time; in five, aphonia, or some impediment of speech was present; and, in one, the intercostal muscles, the pectoralis major, and sterno-mastoideus appeared to have lost their contractility. Although, generally, the paralysis is limited to the muscular system, without disturbing the sensibility of the parts, yet cases sometimes occur, in which this latter function is injured simultaneously; it may be either exalted, impaired, or altogether abolished. The first of these morbid conditions is the most common.

The muscles most frequently affected are the extensors of the fingers, the supinators, and the adductors and abductors of the thumbs. When the lower limbs are the seat of the paralysis, there is almost always some affection of the upper ones at the same time. As stated above, the tongue may become completely or partially paralyzed, and the patient will then stammer, or even lose all power of articulate speech; or the muscles of the larynx may be affected, and the voice be quite lost. The paralytic symptoms induced by lead generally come on very gradually, and almost imperceptibly, as the colicky symptoms abate and disappear; at other times, the colic and paralysis are simultaneous in their attack, and the former may be relieved, while the latter seems to be not at all affected; and, lastly, the paralysis has been known to supervene suddenly, during the severity of a colic attack, banishing it, and assuming, as it were, its place in the system; but this is a rare occurrence. One practically important fact has been often overlooked by authors, namely, that the saturnine paralysis may be induced, without having been preceded, or without being accompanied, by any affection of the intestines. Its duration varies from a few days to several years. As a general remark, it is worthy of notice, that most cases of lead palsy are, at least in their early stages, susceptible of cure.

The remedies which have been most approved by experienced men, are electricity, sulphureous baths, and the internal and external use of the nux vomica. M. Rayer, the distinguished physician of the La Charité Hospital, has been eminently successful in the treatment of this disease; he employs the strychnine, first internally, and then in the endermic method, conjoining the daily use of sulphur baths, or fumigations. The pathology of lead palsy is not at all known. "Would to God" (exclaims a French reviewer of the Hippocratic school) that many other

diseases, so well known in an anatomical point of view, were as easily cured." —*Essai sur la Paralysie de Plomb. Paris*, 1834.

LITERARY CURIOSITIES.

An ingenious contributor to our valued contemporary, the Revue Medicale, has endeavoured to lay down and illustrate certain rules or maxims to be followed by those who are much engaged in mental occupations. Among other topics which he has introduced, he alludes to the very different habits of different authors, when occupied in composition. Montaigne shut himself up in an old tower "pour y digerer librement à loisir ses pensées." Rousseau herborized; it was, he used to say, "en se meublant la tete de foin," that he could think most profoundly. Montesquieu composed the groundwork of the "Esprit des Lois," while reclining in a post-chaise. Milton generally composed at night, sitting in his armchair, with his head resting on the back of it. Bossuet sat in a cold room, but kept his head warm with a quantity of coverings. Mr. Fox, after having indulged to excess in the pleasures of the table, would often, when he went home, retire to his study, and wrapping a cloth dipped in vinegar and cold water round his temples, sit engaged in study for ten hours successively. On the other hand, we are told that Schiller wrote most of his best pieces when he had his feet immersed in ice-cold water. Maturin the author of Bertram, Melmoth, &c. withdrew into the most retired privacy when engaged in composition; when the inspiration seized him he used to place a wafer between his eyebrows, to announce to his servants that they were not to disturb him. Jeremy Bentham was in the habit of writing all his ideas on small scraps of paper, and then stringing these together, so that they resembled rather a huge file of a merchant's bills, than the manuscript of an author's work. Napoleon, we are told by Bourrienne, when engaged in deep thought, would often be humming or singing a tune all the time, or notching the arm of his chair with the "air d'un grand enfant;" then suddenly he would start up, and point out the design of a monument to be built, or explain some of those mighty projects which used to astonish and terror-strike the world. These from out an almost infinite number of examples, sufficiently prove how different in different men are the circumstances favourable to mental labour; no general rule can be laid down, and the only advice to be suggested is, that each must work according to his fancy, habits, and ease.

What has been said of literary composers holds equally true of their musical brethren. Some, as Sarti, &c. can compose only in silence and gloom. Cimarosa delighted in noise and brilliancy. Sacchi found relief, and almost assistance to his ideas, if several kittens were playing in the room beside him; and Paesiello, in his fits of composition, used to bury himself under the bed-clothes, trying to banish from his memory all the rules and precepts of his art, and giving vent to his feelings in the exclamation "Holy Mother, grant me the grace to make me forget that I am a musician."!!

It is an observation as old as the hills, that great and enduring works can be achieved only by patience and tedious thought. Perfection in any accomplishment, said Girodet, "ne s'improvise jamais." And Antoine de la Salle used to remark of any one commencing a work of importance, "celui n'est que l'ecolier de celui qui le finit." Even Voltaire, who perhaps of all authors had the greatest facility of rapid composition was well aware of the requisite labour which must be spent in frequently revising his work; writing to M. Dargental on the occasion of a tragedy which he had very quickly composed, he wittily says, "Ma tragedie est finie; mais vous sentez bien qu'elle n'est pas faite. Mon ours de six jours demande six mois à etre leché."

But the tedious labour of long-continued and of often-repeated thought, is by no means the attribute of the authors of the present times; men of science, as well as men of literature, are

in a mighty haste after fame and glory, and there is many an "esprit genereux," who, like Champollion, is feeding himself with the hope of leaving "sa carte de visite chez la posterité." Our ingenious cotemporary concludes his amusing paper with some sensible remarks on what may be termed the "adjuvantia" of mental labour; having alluded to the advantages of an airy, cool, and quiet study, he then, en passant, suggests the propriety of wearing large, wide, and convenient articles of dress (every one knows "les Regrets à ma vieille Robe de Chambre," one of Diderot's best pieces), and points out the injurious effects of stooping too much, or for a great length of time, at a low table, when engaged in writing. It is well (says he) to rise from the table frequently to walk about the room, read aloud, and occasionally to vary the subject of meditation by one of a less grave character. These precepts, although seemingly trifling, are not so in reality. "An atom makes a shadow," was an observation of Pythagoras; and there is as much physiological as mere physical truth in the observation; the slightest organic lesion, the smallest injury, the least perceptible disturbance of health, may become, if neglected, the parent of much serious mischief.—*Révue Médicale.*

CHEMICAL EXAMINATIONS OF SPOTS, CAUSED BY BLOOD AND SEMEN, ON LINEN.

A charge of attempted rape on the body of a young girl, 11 years of age, was lately preferred against a man at Paris, and M. Chevalier was applied to, for the purpose of ascertaining, if possible, the nature of certain spots which had been found on the chemise of this child. The following is an account of his researches.

1. *Spots caused by a Bloody Fluid.* The linen so stained was cautiously immersed under the surface of distilled water: in the course of a few minutes, a brownish cloud began to separate from the linen, and was gradually precipitated to the bottom of the vessel, in long reddish streaks. By the end of an hour, the water had acquired an uniformly reddish-brown colour—it restored the colour of paper which had been reddened by an acid; but this property seemed to be quite independent of the admixture of any fluid, and was no doubt caused by the alkaline impregnation which all linen receives when dressed. Heated to 100° C. in a glass tube, the discoloured water became more cloudy, and yielded a reddish-grey coagulum, which, on the addition of a few drops of caustic alkali, was re-dissolved, leaving the fluid of a greenish hue by reflected light, and of a reddish-brown by a refracted. An infusion of gall-nuts caused a reddish-grey precipitate.

2. *Spots produced by the fæculent Discharges.* The linen was treated with water, in the same manner as in the preceding case. The water speedily acquired a yellowish colour, and the characteristic smell. The alkaline property was again noticed, and arose, no doubt, from the cause which we adverted to. The filtered solution gave a precipitate with infusion of galls; evaporated in a glass dish, an excrementitial odour was emitted, and an albuminous coagulum furnished: this was mixed with a greenish-yellow matter, slightly acid and "sucrée," analogous in taste to picromel.

3. *Spots produced by an Animal Mucus.* Linen stained with seminal fluid, when immersed under the surface of water, did not, as in the preceding cases, induce any disturbance of its transparency; it (the linen) became slippery and viscid when moistened; the water yielded a few flocculi on the addition of nitric acid—when evaporated, it gave no coagulum, and emitted a peculiar faint smell, somewhat like that of fresh semen. Now the stains on the linen of the girl gave rise to appearances which did not agree with those now mentioned; the water with which it was treated became troubled and cloudy, and a flocculent precipitate

was formed at the bottom of the vessel; the linen, when moistened, did not become viscid to the finger; the precipitate caused by the addition of nitric acid was much more copious than had been the case with the sperm-stained linen, and the liquid, when evaporated, became coagulated, and gave out an odour of animal gelatine. These negative proofs were made more satisfactory, by comparing the results with those obtained from linen stained with a leucorrhœal discharge; the same precipitation by nitric acid, the coagulation by heat, and the giving out of an odour of animal gelatine.

The conclusions which M. Chevalier arrived at were—

1. That the red stains on the chemise of the girl had been caused by blood.

2. That the alkalinity of the water in which the linen had been immersed was of accidental occurrence, as other linen, free from all stains, produced the same phenomena.

3. That the yellow spots on the chemise had been caused by the fæcal discharge.

4. That the other stains had been caused by the vaginal mucus, and not by seminal fluid.—*Journal de Chimie.*

Analytic Epitome of the Second and Third Sections of M. J. B. Cayol's Traite' des Maladies Cancereuses. Paris 1833.

Cayol, in the second and third grand divisions of his Treatise on Cancerous Diseases, a mat rially improved edition of which is now before us, passes in review the therapœia and empirical nostrums, whether external or internal, which have obtained notoriety in France, Germany, and Great Britain.

In this article, it is intended to notice the most important of M. J. B. Cayol's remarks, particularly in reference to his unwearied research, and success in imparting a knowledge of the ingredients of the recipes of Dubois, Bayle, Plenck, Storck, Lambergen, Gerbier, and Gamet, &c. With the only other prefatory remark which we deem it necessary to make, that a leading object with us is brevity, we proceed at once to the—

First Chapter.

External Remedies.

Arsenical Preparations. Of these, the white arsenic of commerce is unquestionably the most efficacious. It does not cure the disease, but acts on the degenerated parts, which it destroys by its energy, as an escharotic. It was first used by Fusch, in 1594. His formula was composed of white arsenic, chimney soot, and great serpentary root. Its application to ulcered surfaces was occasionally followed by fever, accompanied with rigors, vomitings, fainting fits, requiring the renouncement of the remedy.

Rousselot's and Frère Come's Powders. The merit of these powders consisted in different substances being combined with the arsenious acid, by which its deleterious effects on the system were obviated, without impairing its action as an escharotic. Rousselot's powder was composed of *dragon's blood and cinnabar, of each two ounces—white arsenic, two grains. The whole mixed, and thoroughly pulverized.*

Frère Come made use of similar ingredients in different proportions, adding to the melange grs. xviij. of the powder of "Savatte brulée."

Professor Dubois for many years made use of this formula—

Dragon's blood, ʒj.
Cinnabar, ʒss.
Arsenious Acid, ʒss.

Reduce the whole to powder, and mix thoroughly.

When about to use the above, Dubois added saliva, in sufficient quantity to form a paste, with which the crusts and excrescences on the surface of the ulcer were smeared: and above this he uniformly applied a stratum of arsenical paste, about two lines in thickness, which he covered with cobwebs (toile d'araignée.) The eschar separated

about the twelfth or fourteenth day. The same remedy was advantageously employed upon the wound resulting from an extirpated *cancerous* tumor, when the disease threatened to repullulate.

In the middle of the seventeenth century, the famous powder of Pierre Alliot made a great noise: from the testimony of — Vacher and others, it was a preparation of arsenic, no way superior to the arsenical paste. The same may be said of the solution of arsenic, used in England by William Shearly as an escharotic.

Preparations of Lead. To discuss scirrhous *engorgements*, and even cure ulcerated cancers, saturnine extract, and other preparations of lead, were much praised by Goulard, physician in Montpellier, and many English and German practitioners.

Marvellous properties were attributed by Brambilla to a plaster, composed of red oxide of lead, olive oil, and turnip juice. Lead, however, in Cayol's opinion, can be regarded only as an admirable sedative; for, says he, "the observations of these physicians prove that they gave the name *scirrhus*, to engorgements not of a cancerous nature."

A preparation frequently employed by Bayle with advantage is this—

Golden litharge,
Vinegar of each, ʒvj.
Good Olive oil, ʒij.

The litharge triturated in a porcelain vessel, adding the vinegar gradually; next the oil, drop by drop, "continuing the trituration until the mixture has acquired the consistence of half-congealed oil. He spread this liniment over the whole surface of the ulcer by means of a pencil, or with the brush of a quill. By the addition of a sufficient quantity of virgin wax, it may be converted into an ointment. The remedy is particularly advantageous to lull the pa ins of cutaneous cancer." Vegeto-m neral water is likewise employed with he same view.

Preparations of Iron. Mr. R. Carmichael, of Dublin, in 1806, published an essay *On the Properties of Carbonate of Iron*, applied to the treatment of cancerous maladies. Five cancerous ulcers of the face and of other parts, he assures us, were completely cured by being sprinkled with this salt, very finely powdered. Dr. Hall, of London, doubted the nature of the maladies cured by Mr. Carmichael; but he regards carbonate of iron as a valuable remedy in the treatment of phagedenic ulcers, simulating cancer.

Mercurial Preparations. The solution of hyperoxygenated muriate of mercury, recommended by A. Wilson, vapour of cinnabar, &c. which have been vaunted as *anti-cancerous*, have never cured *cancerous* diseases; but *venereal* affections only, which, by degeneration, have assumed the appearances of cancers. Cayol makes an important remark—"Mercury, in whatever form administered, has always appeared to us to be hurtful, in diseases truly cancerous."

Alkaline and Acid Substances. These have been employed in turn, in accordance with the ideas adopted, as to the nature of cancer. M. Martinet, rector of Soulaines, pretended to having cured many occult cancers, by compresses steeped in a solution of ammonia; drops of the alkali were prescribed at the same time internally. Solution of potass was prescribed by Dr. Barker.

Carbonic acid gas was confidently proposed by Peyrilhe (who never could see any thing in cancer but an *alkaline acrid*), not only as palliative, but as calculated to effect a radical cure. Oxygenated muriatic acid was spoken of in high terms about the same epoch; but of the much that is written, little is trustworthy.

Animal and Vegetable Substances. With regard to these, as in the case of alkalis and acids, their ephemeral reputation is partly owing to hypothetic fancies, charlatanism, and fortuitous circumstances.

Sedum acre, first recommended by Quesnay, has very recently been noised abroad by Lombard, chief surgeon to

the Military Hospital of Strasburg, who recounts many remarkable cures effected by this plant, fresh and applied to ulcers regarded as cancerous. Solander and Colden had formulæ, in which the juice or extract of the *phytolaca decandra* was the chief ingredient. Expressed juice of foxglove (fresh) diluted in the proportion of a spoonful to a pint of water, to be used in soaking compresses. Gastric juice of animals, (Senebier of Geneva). Ox blood proposed by Vanevy as a succedaneum for gastric juice.

Cataplasms of the pulp of carrot were eulogized A.D. 1766, as very efficacious, especially in cancer of the breast, by Sultzer, chief physician to the Duke of Saxe-Gotha. This remedy was abandoned, from want of success, in the practice of the French; but, in the interim, Bridault submitted it to experience, with the precautions adopted by every judicious practitioner: and in 1802 he published, what an experience of five and thirty years had aprized him, as to the medicinal properties of carrot.* Cayol, from many trials of this root, coincides with the observations of Bridault, viz. that "carrot cataplasm is inefficacious against cancer; but that it can ameliorate, and even cure, many dartrous, scrofulous, or other affections, which sometimes possess all the appearances of cancer, and which frequently determine this unfortunate organic degeneration in predisposed subjects."—*Clinique, p.* 521.

Opium, hemlock, hyosciamus, and belladonna, have likewise been used in the form of cataplasms, plasters, fomentations, &c. &c.

M. Steidèle indulged sanguine hopes of his ability to cure cancer, whether occult or ulcered, by the persevered-in application of compresses steeped in liquid laudanum, provided, (added M. Steidèle, and what an important *qualifier!*) "that the patients were not old; *and*, that their *viscera were in a sound state.*" Cayol quotes, *Journal de Med. tom.* 82.

Cauterization.—Confessedly the first means resorted to for destroying cancer, was the *actual cautery*, (*Hippoc. Epidem. Lib.* vij.) M. Leconte hit upon the ingenious idea of cauterizing the lower lip by solar heat, placing the affected part under a very powerful lens;—the operation was very successful.† This practice, more curious than useful perhaps, is thus commented on by Cayol:—"It is certain that this kind of cautery has not, like the actual cautery, the inconvenience of losing a part of its heat, before acting to the depth required; nor that of burning the neighbouring parts; but a solitary observation does not suffice for appreciating an operative process; and it does not appear that this possesses any advantage over the arsenical paste."

Electricity.

Dr. Easton (Dublin) relates the case of a lady, who, after having been capsized by a thunderbolt, saw, to her infinite surprise, a scirrhous tumor of the breast disappear. No remedy had been employed.

Cayol judiciously withholds his assent from the conclusion, arrived at by other authors, that electricity should be numbered among the curative means of cancer. "What comparison could be established between the effects of electricity with the precautions necessary not to compromise the life of patients, and the commotion produced by a clap of thunder?"—*Clinique, &c. p.* 523.

Different Topical Applications.

The reputation of *antiseptics* or *detersives* has been founded on erroneous diagnosis.

Standard authors having asserted that cancer in the last stage has been cured by Plenck's vulnerary water, it would be inexcusable not to indicate its composition. Take of—

Lime water, one pound,
Burning soot from an oven, an ounce,
White lead, half an ounce,

Mix and boil for quarter of an hour, and add—

* Traité sur lar carotte, 8vo.

† M moires de la Societe Royale de Médécine, An. 1776.

Liquid myrrh, half an ounce.

Compresses or charpie steeped in this liquid were applied to the surface of the ulcer.

Cayol closes his section on external remedies after observing, that of the innumerable list of topical applications, most of them act as escharotics or caustics; "and of the whole of these we know none preferable to arsenical paste;"—others, for the most part, are purely empirical nostrums. It would be impossible to enumerate every pharmaceutic preparation employed as a calmative: our author contents himself with naming two of the most celebrated —the plaster and liniment of Pissier.

Plaster. Take of—

Oil of linseed, two pounds,
Red lead,
White lead,
Yellow wax, of each eight ounces.

Make *secundem artem*, into an ointment.

This is spread over the skin, "and is applied to occult cancer, with the view of tranquilizing pain, and preventing ulceration."

Liniment. Melt together—

White wax, two ounces,
Linseed oil, four ounces.

When cool, add *tincture of opium an ounce.*

Spread upon lint, and use as dressings for ulcerated cancers.

SECOND CHAPTER.

Internal Remedies.

It would appear that the ancients did not employ internal remedies in treating cancerous diseases. Tumors of the mammæ, accompanying a kind of false pregnancy, were attempted to be discussed by reinducing the catamenial excretion. Hippocrates directed a decoction of elaterium to be quaffed, if the cancer followed a diarrhœa or rebellious cough; and, that the ulcer should be dressed with the dust of calcined copper.

Celsus says expressly that cancers which neither fire nor iron can heal are incurable.

If cancerous tumors attained a certain volume, Galen admitted their nature to be incurable, and contented himself with indicating such remedies as were calculated to check their progress.

In modern times a multitude of substances have successively been extravagantly praised in the internal treatment of cancer. Not one of them can be regarded as a specific. The majority of external remedies in different doses and forms have been administered internally. Storck's preparation of the *extract of hemlock* is unquestionably the most celebrated of these.

Hemlock. Cayol describes minutely the neccessary pharmaceutic processes from the time proper for gathering this valuable plant till ready for being prescribed. The hemlock (conium maculatum) flowers in May and June, when it should be gathered and pounded with a wooden pestle in a marble mortar—next submitted to pressure—the juice passed through a strainer—thickened at a slow fire; to the consistence of thick extract; and lastly, mixed with a sufficient quantity of the dried leaves reduced to powder, to give it a pillular consistence.

One or two grains of this extract are commenced with evening and morning, gradually increasing the dose to a drachm and a half or two drachms daily. After each dose, the patient should drink a cup of tea, veal broth, or elder-flower water. In general, to obtain good effects from hemlock, the dose should be raised until slight vertigo, trembling, disagreeable feelings in the eyes, or diarrhœa, result. Should these symptoms be carried the length of poisoning, acids, emetics, &c. must be resorted to.

Should the cancer be external, various preparations of hemlock may be used locally; the leaves being applied in their natural state, or as cataplasms. The decoction serves for fomentations or injections. When the dried leaves only can be had, a small bag may be filled, dipped in boiling water, and applied to the part affected, when at a tepid temperature.

Hemlock plaster may be applied on indolent or somewhat painful scirrhi.

Such are the preparations with which Storck (believed at least that he) cured

cancers of the breast, womb, &c. towards the middle of last century.—Cayol justly remarks—"A circumstance which should encourage suspicion of the truth of Stork's observations, is, his having cited cases of cure only, thus insinuating, against all probability, that no cancerous disease had withstood his remedy." (p. 529.) The great name of this physician gave an extraordinary popularity to hemlock, and the *anti-cancerous* properties of this plant were supported by multiplied experiments made in every country.

No good ensued, on the assertion of Dehaen, from its use in one hundred and twenty cases. Eight cases of uterine cancer treated in accordance with Storck's method were not ameliorated. Fothergill in England, Bierken in Sweden, Akenside, Rikmann, &c. &c. regarded the extract as ineffective in the treatment of cancer. In the hands of others, notable relief, but never a cure, followed its employment. "Some went even so far as to say that it exasperated the evil at the very time while seeming momentarily to mitigate it." Cullen and many French practitioners agreed as to the "virtue" of hemlock, in curing certain scrofulous and syphilitic "engorgements." Of later years, M. Alibert repeated with care Storck's experiments upon more than a hundred women affected with ulcers of the womb, &c. "without deriving the least advantage."—*Nouv. Elem. de Therap. tome* i. *p.* 425.)

From these and other observations, Cayol deduces that "extract of hemlock acts, in the first instance, as a stimulant, and afterwards as a narcotic, when the dose is raised to a certain point. It appears of use in facilitating the resolution of many kinds of chronic *engorgemens*, particularly scrofulous and syphilitic affections. It never cures scirrhus nor cancer; but occasionally checks their progress, and renders them less painful. In the latter cases it appears to us to act by modifying advantageously the chronic inflammation of different tissues surrounding the degenerated parts. If, after producing this happy effect, the remedy continue acting as an excitant, it almost always irritates the cancer, and accelerates its progress." (p. 530.)

Belladonna, Hyosciamus, &c. Lambergen prescribed a scruple of the dried leaves of belladonna in ten cupsful of boiling water. The patient commencing with a cupful of this infusion every morning fasting; the dose gradually augmented, till dryness of the throat, nervous symptoms, &c. required the suspension of the remedy. This plan was modified by Darluc, Amoreux, Marteau de Grandvilliers, Campardon, and Cullen. It would appear that, when circumspectly employed, belladonna, like hemlock, accelerated the cure of many kinds of lymphatic *engorgemens* simulating cancer, and checked the progress of some diseases of a truly cancerous nature.

The same may be said of hyosciamus, wolfsbane, water-fennel, cherry-laurel—"very active medicines, and the employment of which requires so much the more prudence, as their physiologic and therapeutic effects have not yet been suitably appreciated"—(p. 531.)

Salts and other Mineral Substances.

Acetate of Copper,

Or *verdigrise* was the chief ingredient of Gamet's remedy, and of the pills of Gerbier—two recipes which in turn enjoyed great celebrity in curing scirrhi, cancers, and inveterate ulcers of the breast and womb. M. Mitag-Midi, a celebrated physician, who had strong prejudices against preparations of copper, assures us, nevertheless, of having seen many cancers of the womb, throat, axillæ, groins, and mammæ, cured by Gamet's remedy.

Dr. Solier of Romillais, by order of the faculty of Paris, made numerous experiments with the preparations of copper, in order to estimate their value as anti-cancerous remedies. An admirable report was published in 1778 & 9 at Paris. It resulted from these experiments, that verdigris produced no effect on cancer of the breast; but acted more beneficially, perhaps, than any other remedy on *cutaneous* cancers. When

the dose required being pushed beyond ten or twelve grains, precordial anxiety, colic, obstinate diarrhœa, vomitings, &c. resulted. It has been suggested to renew experiments with Gamet's and Gerbier's recipes thus modified.

"Take of acetate of copper and iron filings, of each two scruples and a half. Triturate these substances for a sufficient time in a copper mortar with a pestle of the same metal. Add one drachm of ext. of hemlock, mix thoroughly, and divide into pills of a grain each." Begin with one of these daily, augmenting the dose cautiously up to twelve or even fifteen grains. Acetate of copper during the whole may, as by Gamet, be applied topically in the form of ointment or injection.

White Arsenic

Was announced in 1775 by M. Lefebvre de Saint Ildefond as an *experienced remedy* in curing occult or ulcered cancer.

Four grains of it were dissolved in a pint of distilled water, of which the patient took a spoonful every morning, united with an equal quantity of milk, and half a drachm of syrup of diacordium. Eight days thereafter (there being no contraindication) a second dose was given in the evening, and perhaps a third at mid-day. After the contents of the first bottle had been consumed, a second quantity was prepared from six grains instead of four; and eight grains was the maximum. Six bottles sufficed in general in curing cancer of the breast. The ulcer was bathed daily with a solution of arsenic (viii. grs. to the pint) and covered with a cataplasm of carrot pulp, boiled in the same solution, to which were added sugar of lead, laudanum, and extract of hemlock. in varying proportions.

In 1778, M. Roennow published the results of his experience. During fifty years trial, says Cayol, "of this remedy, he averred having cured thirty well characterised cancers; in short, he did not hesitate to announce arsenic as a specific against the cancerous vice." After alluding to such positive assertions in connexion with "les annonces fastueuses des charlatans," Cayol remarks, "nevertheless, the arsenious acid employed at Stockholm by Arrel, in Prussia by Metsger, in England by Bell, and in France by Desgranges, of Lyons—never effected a single cure of cancer, and frequently occasioned casualties requiring a discontinuance of its use." Cayol never saw any bad effect result from arsenious acid, or from the arseniate of soda used by him in treating ague, "according to the formula published lately by M. Foderé."

Carbonate, Muriate, and Tartrate of Iron.

Experiments, &c. and recorded results are too few to justify any deductions from the employment of the above preparations.

Muriate of Baryta.

Though confidently proposed by Crawford, of London, has enjoyed but an ephemeral reputation. Of the three cases (only !) given by Crawford, Cayol admits only one to have been truly cancerous. Pinel and Alibert found that water saturated with muriate of Baryta as recommended by Crawford, induced casualties, when carried beyond six drops per dose.

We conclude this article with an epitome of the instructive contents of the remaining portion of the chapter entitled—

DIFFERENT EMPIRICAL RECIPES.

Grey Lizard—(Lacerta Agilis.) Is one of the *anti-cancerous* remedies, the virtues of which have been the more exalted on account of its singularity. J. Flores, of the University of Guatimala, in Mexico, was the first who published on the subject in 1781, his memoir being reprinted the year following, at Madrid.

His recipe ran thus—the heads and tails of lizards to be cut off, and after stripping off their skins and entrails, to be bolted forthwith, "tout palpitans." One, two, or three, were thus to be devoured daily. Cataplasms were applied to the cancers. The use of this specific was said to be followed with febrile heat, anxiety, sweats, profuse alvine and renal discharges—convulsi-

ons, &c. The grey lizard was so celebrated by the Spanish physicians, that Daubenton and Mauduyt, two celebrated naturalists, were requested by the Royal Academy to ascertain its species. The case of a wench at Cadiz was much spoken of, who got cured in the space of twenty days of an ulcered cancer of the breast, by gobbling a lizard every morning. Theses were published on the virtues of the lizard in Sicily and Germany by Grass and Roëmer. It appears that the French Doctors were not so successful in *their* experiments. M. Bayle directed a man affected with a cancerous tumor of the face to take the remedy—fifty grey lizards were swallowed in the space of fifteen days! "this remedy so vaunted produced no physiologie nor therapeutic effect."

Bleeding.

Repeated blood-letting has been included among the curative means of cancer by many authors, more particularly by Valsalva, and Fearon, of London. By Fearon, leechings and topical applications of lead were ordered. If the cancer were internal, general blood-letting was practised, and with effect much more gratifying than could be brought about by opium or hemlock. Milk and vegetable diet only was permitted.

Pure Water.

Nothing, not even pure water, has been excepted as calculated for curing cancer, or preventing recurrence after an operation. Pouteau, of Lyons, flattered himself, that many had been radically cured by drinking five or six pints of iced water, during the four and twenty hours, *as the sole nourishment.* The appetite ceased in the course of the third day, his patients bearing the privation well. "There was one who lived fifty days, and even two months without tasting any thing but pure water." If the breath became sour, and the tongue lemon-coloured, two or three drachms of magnesia were given in the forenoon. In the course of two months the patients returned cautiously to the use of soups and solid aliment. Cayol says that, after examining Pouteau's facts, "it will be seen, that he cured nothing more than chronic phlegmasies." Dr. Lamb adopting the ideas of Pouteau, recommended patients affected with cancer to be nourished with distilled water only, for a certain time.

The *examen* of the different treatment recommended up to this hour is not pushed further by Cayol. Of the numerous pretended specifics, there are few to be found which can be employed with benefit, not in curing, but even in assuaging pain for a transient period. "When we consider all that has been said and published upon this subject by trustworthy men (for we do not here speak of vagabonds and charlatans)—it were devoutly to be wished for the honour of medicine, that we could attribute so many falsehoods to the nature of the disease and the difficulty of diagnosis. But, independently of these causes, we cannot overlook the illusions of self-love, the desire of notoriety which speculates on the dearest interests of humanity, and a shameful weakness, not permitting fruitless attempts to be avowed, and which leads so frequently to imposture: a kind of moral degradation, the *tableau* of which is not less afflicting than that of our physical infirmities!

Although the public have so frequently been abused, we must avoid concluding, that remedies which may yet be proposed for the treatment of a disease as yet regarded incurable, should be rejected unexamined. The nature of syphilis is not better known than that of cancer, and it is infinitely more varied in its forms; nevertheless, we are acquainted with a mean of cure, and the mean is purely empirical: it was by a suite of experiments and trials that the discovery was attained; and why may not a specific against cancerous diseases be also discovered.

Assuredly praise is due to those who devote themselves to experimental researches on the treatment of maladies reputedly incurable; but such attempts should be directed with prudence, and the results candidly published."

VAGINAL DISCHARGE IN VERY YOUNG FEMALES—SUSPECTED VIOLATION.

A girl, seven years of age was brought by her mother to Dupuytren's consultation for his advice respecting what she thought were the effects of violence committed on her child. There was a copious yellow-coloured discharge from the vagina, and the labia were red, swollen, and painful. No excoriation or laceration however was to be perceived, and the hymen remained perfect. Dupuytren assured the parents that the symptoms by no means justified the suspicion which they entertained; he could not say positively that no attempts had been made to injure the child; but only that the existing symptoms might arise from other causes. Indeed so frequent are cases of this description at particular periods that some have suspected that they may depend upon some epidemic influence.

Dupuytren was lately consulted by a lady about her young daughter, in whom a purulent vaginal discharge coming on without any apparent cause had been observed for several days; it was of a greenish yellow colour, stained the linen deeply, and was so acrid as to occasion painful micturition. Dupuytren regarded the case as one of catarrhal inflammation of the genitals; and predicted at the time that in all probability several cases of a similar nature would present themselves to his notice in the course of the week: and so it was: they were all treated successfully with tepid baths, demulcents and soothing washes.

In the record of the Faculty of Medecine for 1815, there is the report of a commission (consisting of MM. Dupuytren, Roux, Dubois, and Desormeaux) on a case of suspected violation on the body of an infant only 14 months old, in consequence of a statement which Dr. G——d had made to the prefect of the police, "that the hymen of the infant had been torn, and that the laceration was quite recent." We may here state that the mere circumstance of the hymen being entire, or not, is far from being a conclusively exculpatory or condemnatory circumstance; it may be entire, and yet the legal crime of rape may have been perpetrated; and on the other hand, it may be destroyed in other ways from that of sexual pollution. Moreover we have already seen that the existence of a discharge from the vagina is most unsatisfactory evidence; and the same remark may be made as to the occurrence of tumefaction and even of ecchymosis of the external genitals: in short, these and other symptoms merely indicate the presence of an inflammation, but do not at all point to the cause of that inflammation, and we must be careful not at once to suspect a crime, merely because it is possible that it may have been committed. The commission above named acted judiciously in limiting their report to the bare statement, that the infant was affected with a puriform discharge.—*Journal Hebdom.*

ON CERTAIN MENTAL ILLUSIONS.

In a memoir read by M. Esquirol before the Institute, in October, 1832, the learned author endeavoured to establish the distinction between mental hallucinations and mental illusions: the former are the mere offspring of the disturbed mind, arising without any evident cause, and referable to no distinct operation preceding them; whereas the latter are the results of certain impressions made upon the body, but the nature of which impressions the insane strangely mistakes and perverts: the former are altogether mental phenomena; the latter are mental indeed, but generated from and depending upon previous corporeal influences. These corporeal influences are very generally painful sensations, either on the more immediate organs of sense, or on some of the viscera contained within the great cavities. A few examples will readily indicate that set of cases which Esquirol denominates "illusions."

Illusions depending upon a Disturbance of the Organic Sensibility of the Encephalon.

Case 1. A young lady 18 years of age, having for some time suffered from a severe pain on the crown of the head, at length insisted that there was a worm within her head devouring her brain. No reasoning could disabuse her mind of this illusion; and she was convinced that the only method of relieving her was the extraction of the worm. An incision was accordingly made through the scalp, and a portion of fibrine was drawn out, with much ceremony, as if to corroborate the truth of her prediction. She was satisfied, and expressed great pleasure. The wound was kept open for two or three months, by which time, not only all the pain, but the mental illusion as well, had entirely subsided.

Case 2. A countrywoman was admitted into the Salpetrière, in consequence of intense pain at the top of the head, which she attributed to the presence of some animal concealed under the skin. An incision was made through the scalp at the pained spot, and a portion of an earthworm was then shewn to the patient, as if it had been extracted from the wound. She testified great joy at the time, being assured she said, of her speedy recovery; but the hope of this fortunate event was soon baffled, for, in a fit of rage, she tore open the issue which had been established at the wound, and the mind became as unhinged as ever.

Case 3. A lady, 30 years of age, who had fallen into a state of hypochondriasis, after suffering great mental distress, was impressed with the idea that her brain had become petrified. Some time after, she thought that it had softened, and was in a fluid state. On the dissection of this patient, a scrofulous deposit was found in the anterior lobe of the cerebrum.

Illusions depending upon a Disturbance of the Organic Sensibility of the Abdominal Viscera.

Case 1. Ambrose Paré mentions the case of a hypochondriac, who believed that he had some frogs in his stomach, and who was cured by a smart purgative or two, the attendants having cunningly introduced a frog or two into the night-stool before the patient went to it.

Case 2. M. Esquirol examined the body of a woman who had died at the "Salpetrière;" she had believed that some cruel animal was in her stomach. This viscus, at its pyloric orifice, was found cancerous.

Case 3. In 1832, there was a woman in the Salpetrière, who suffered from repeated attacks of severe colic. Her own idea was, that a regiment of soldiers lay concealed in her belly, and that she could feel them struggling and fighting with each other. Dissection shewed that a chronic peritonitis had existed for a length of time, and had glued large portions of the intestines together.

Case 4. A woman, 57 years of age, of a strong and sanguineous temperament, and so extremely devout and religious in her way, that she was styled by her keepers "la mère de l'église," because she was constantly talking of some scriptural subjects, was impressed with the belief, that all the apostles and evangelists had taken up their residence within her bowels; moreover, that the Pope held his conclave there; and that, occasionally, even some of the Patriarchs of the Old Testament sojourned with his holiness. On examining the abdominal viscera of this woman after death, it was discovered that all the intestines had become agglutinated together, in consequence of chronic peritonitis.

Case 5. Similar morbid appearances were found in the abdomen of a lunatic, who believed that a devil had taken up his abode in his stomach to torture him. In this case, the skin, over almost every part of the body, was singularly insensible to mechanical injury; it might be pricked, pinched, and cut, without the patient appearing to suffer any pain.

Case 6. A lady, aged 40, mother of several children, had enjoyed good health

up to the year 1826, when she experienced a dreadful shock to her feelings, from seeing a young girl of her acquaintance killed by a carriage being driven over her body; she became affected with violent palpitations, with syncope and hæmoptysis; and being summoned to give her evidence upon the trial, other symptoms, such as vomitings, convulsions, grinding with the teeth, a sensation as if something was alive in her stomach, and every now and then was rising up her throat, began to shew themselves. This delusion became gradually more and more fixed in her mind; and no reasoning could dissuade her from the belief, that a common earthworm had found its way into her bowels, and was gnawing and eating them away. This lady was living at the time in the country, and a solemn consultation was held among the wise women of the village, respecting what should be done to expel this worm: at length, the ingenious idea occurred to them, that this worm, if actually in the stomach, might be fished out with a piece of bait, on the very best and most acknowledged rules of angling! For this purpose, the heart of a pigeon was taken and made fast to one end of a string; it was then swallowed by the patient, and after having remained for a sufficient length of time, to entice the worm to lay hold of it, it was withdrawn by means of the other end of the string! but, alas! neither worm, nor even pigeon's heart returned upwards; for the monster had been so greedy as to bite through the string just above where it was secured round the bait!! Some of the savantes proposed to repeat the operation, affixing a hook at the end of the string, which was to be introduced into the stomach; but their advice was over-ruled, and nothing further was done; as her friends now insisted that some regular physicians should see her.

At first her malady was considered as simple hypochondriasis, dependent probably upon vermination, and Dupuytren among the number being consulted, wrote a prescription for a mixture consisting of jalap, pomegranate bark, and calomel; but her husband, (who seems to have not been much more sane than his lady,) upon seeing the word calomel, tore the prescription in pieces, vowing that such a remedy was given only to libertines. All the doctors of Paris were consulted in their turns; some would no nothing; others advised the use of different anthelmintics. M. Manry, physician of the hospital St. Louis, regarding the case as one of pure delusion, thought that it might be most easily cured by a counter delusion; and therefore, seeming to agree with the patient's opinion of some live animal being in her stomach, he proposed to extract it by an operation. Accordingly, an incision was made through a fold of the integuments of the epigastrium, (as in making a seton,) and the patient made to believe that the stomach was now laid fairly open, and that a blind worm could be distinctly seen lying at one corner of it; that with some difficulty it was seized and drawn outwards till the patient could lay hold of it herself, and gradually extracted it. All the good anticipated was not however obtained in this instance; for most unfortunately the patient began to suppose that another worm had taken up its abode since the expulsion of the former one, and so quick of growth was this second worm imagined to be, that in the course of a few days it had reached the length of 200 ells.

The issue of this case is not known, as the woman returned into the country.

In the following case, the deception practised was much more successful. A young countryman was fully persuaded in his own mind that he had swallowed a serpent when drinking some water that was rather muddy; that it had gradually grown larger and larger; that it moved about in all directions; sometimes up into his head, at other times down to his anus; now encircling the heart, and now twisting itself round his bladder. When it was disposed to be rather too lively in its motions, the patient said he was obliged to seize hold of one of its rings, through his abdominal parietes, and squeeze it firmly. He repeatedly tried to kill it, by pushing a long sharp

needle into its head, but the instrument has always slipped off when he made the attempt. Whenever he was hungry, the serpent always became importunate. On all other subjects this patient was quite rational; and as he urgently requested that this serpent should be extracted, because he was assured that he should be quite well then, M. Manry performed the operation, as in the preceding case; and from that hour all his sufferings vanished. One day indeed he began to be alarmed at some uneasy feelings in the stomach, which he thought might arise from some ova of the serpent having been left behind; but his fears on this score were at once quieted, when he was told that the serpent was a male. The cure in this case was permanent.

Illusions depending upon a Disturbance of the Sensibility of the Generative Organs.

A woman, well advanced in years, was haunted with the idea that the devil had crept into her womb, and that nothing could dislodge him from his dark abode. This woman died, and it was found on dissection that there were several hydatids on the external surface of the uterus.

In another case, in which the patient believed that some venomous animal had entered her womb, and was accordingly in the habit of pushing pieces of meat up her vagina to entice it down—a similar disease was found affecting the uterus.

Such are a few examples illustrative of delusions which appear to take their origin from corporeal impressions, acting upon a disturbed mind. We mean not to enter into any investigation of this most abstruse subject; our only motive has been to afford some authentic data to the enquirer.—*Journ. Hebd.*

FURTHER PARTICULARS RESPECTING THE MEDICINAL PROPERTIES OF THE CREOSOTE.

In a former, as well as in this present number, we have alluded to the general properties of this recently-discovered substance, which from all accounts seems to be a potent, and consequently, under a judicious use, a useful remedy. A drop put upon the tongue causes very severe pain, and blisters the part; even the epidermis is usually detached from a portion of the skin, moistened with the pure creosote.

The solution of it in water is the preparation which Reichenbach has chiefly employed;—its strength may be made to vary according to the strength of the irritation required; but in most cases a solution of one part of the creosote in fifty of warm water will be found most convenient. He has used it successfully in scalds and in burns, whether the epidermis has been detached or not; in numerous cases of chronic herpes and impetigo, in itch, &c. When these cutaneous diseases are very obstinate and resist the effects of the creosote solution, he is in the habit of applying the substance either directly and in its pure state, or mixed with lard, so as to form an ointment;—under the use of this ointment, the pustules or vesicles very quickly dry and fall off. The period usually required for the cure varies from one to three weeks; and as a matter of course, this must depend on the duration of the disease, and on the constitution of the patient. Several cases of troublesome, and sometimes apparently malignant ulceration are reported as having been cured by the creosote. Scrofulous ulcers are benefited by it in an especial degree; and when there are any sinuses or fistulæ, no injection will be found so useful as water impregnated with the creosote. If the ulcers should be obstinate, it may be well to touch the edges of them occasionally with the pure creosote; but in most cases the application of pledgets of linen wet with the solution will be found sufficient. Tooth-ache may be often cured instantaneously by introducing a drop of it into the cavity of the decayed tooth. Even the mere gargling with the solution in water, will not unfrequently relieve the pain. The efficacy of the use of the creosote internally we should deem much more problematical, and especially in such a

disease as hæmoptysis, for which it has been recommended; the dose given was four drops rubbed up with lump sugar, (it is not stated whether the four drops are to be given in one or in divided doses,) and this was repeated for six or seven days.—*Bulletin Therapeut.*

HYPERTROPHY OF THE MAMMÆ.

Galen is the earliest author who has noticed this malady, and most of the comprehensive records of disease published since his time present some cases of it. Boulli mentions the case of a woman whom he saw at Koenisberg, and in whom the mammæ had become so prodigiously enlarged that she was obliged to support them with bandages, passed round her body and across her shoulders; each of them must have weighed 30 pounds at least. This poor woman had been advised to have the mammæ extirpated, and this murderous operation would have been performed, had Boulli not happened to visit her; he at once discovered that the hypertrophy of the gland was connected, or at least associated, with amenorrhœa, and ordered emmenagogue medicines, derivatives, leeches to the ancles, cupping-glasses to the hips, &c. The result was quite satisfactory; the menstrual flux was restored, and the volume of the mammæ speedily decreased.

Indeed it is a very common occurrence, that when the catamenia have been suddenly checked, the mammæ became swollen and painful. Dorsten relates the case of a young lady, in whom an extraordinary enlargement of the mammæ took place in the course of one night; it was very evidently connected with the retention of the milk, the lady being a nurse at the time; the left breast measured 37 inches round its base, and 18 inches from the base to the nipple—the right one 31 inches round, and 17 in height. Dorsten employed emollient fomentations and revulsive remedies; but, unfortunately, his patient was so feeble, that she could not continue the course prescribed. The catamenia were suppressed for six months, all the means which had been used to restore them having proved quite ineffectual. The lady died; and when the breasts were weighed after death, the left one was found to weigh 64 pounds. No decided structural change could be detected in the gland, except the mere hypertrophy of the cellular tissue which enters into its composition.

Hey, in his practical observations on Surgery, alludes to several such cases, in all of which the enlargement of the mammæ was associated with amenorrhœa: one of these is so remarkable that it deserves notice. A young girl, æt. 13, on the first occurrence of the menstrual flow, had imprudently put on a damp chemise, with the hope of stopping it; the discharge was thus suddenly arrested, and could not be recalled: the mammæ forthwith began to swell, and gradually attained such a size, that she could not keep herself erect, but was obliged to bend her head and body to diminish the extreme tension, and to draw her limbs up to her stomach, for the purpose of supporting the huge pendulous glands. The left mamma, being the most cumbersome, was extirpated—it weighed 15 pounds. The girl was cured, but ever afterwards had a slight curvature forwards of the spinal column.

The hypertrophy of the mammæ sometimes takes place during pregnancy, and disappears with the cessation of the milk fever after delivery. When the nipples are too small, so that the child cannot easily take hold of them, the tendency to the engorgement of the glands is necessarily greater. Professor Cerutti alludes to the case of one of his patients, who was in this condition. The left mamma attained the dimensions of 38 inches in circumference, and 15 in height.

This woman was safely delivered, and when the milk fever set in, the breasts did not seem to become any longer; as it subsided, they very rapidly decreased in volume, and in the course of a month or so, they measured round their bases only 18 inches.—*Meckel's Archives fur die Physiologie.*

III.

CLINICAL REVIEW.

ST. GEORGE'S HOSPITAL.

I. CLINICAL REMARKS ON UNUNITED FRACTURES. By Mr. BRODIE.*

A case of ununited fracture which had been received into the hospital, gave rise to some clinical remarks, by Mr. Brodie, on the methods which have been adopted for the cure of this unpleasant accident.

Mr. Brodie considered, in succession, the employment of the seton—of pressure—the removal of the fractured extremities of the bone—irritation of those extremities, and the subsequent retention of lint between them. We may mention, before we proceed to particulars, that when a fracture is not repaired by bony union, it either unites by the intervention of a ligamentous substance, or a false joint is formed between the ends of the broken bone. When the latter is the case, those ends are covered with a ligamentous structure, and surrounded by a capsular ligament lined with a synovial membrane. In the case which formed the peg upon which the clinical lecture was hung, the former condition obtained.

In alluding to the employment of the seton, Mr. Brodie observed that Dr. Physic tried it in three cases, in two of which it was attended with success. Experience would appear to shew, that it rarely succeeds in the lower extremity.

"Amongst the cases in which Dr. Physic adopted it, I have been informed that there was not one case of ununited fracture of the lower extremity in which it did not fail: indeed, I am not aware that there is a single case on record in which it has succeeded in the lower limb, excepting one which was under my care. The patient was a boy, in this hospital with an ununited fracture of the thigh. A seton was introduced between the broken ends of the bone, and he recovered."

Mr. Brodie alludes, in a favourable manner, to the mode of pressure employed by Mr. Amesbury. Mr. Brodie has known it prove successful—indeed, it answered in a case of Mr. Brodie's which occurred in the hospital last Autumn.

"In former times, it was a common practice to cut down upon the bones engaged in an ununited fracture, and to remove their extremities with a saw: in other words, to make a severe compound fracture. This practice has been, I believe, occasionally successful; but the instances of its success have been very few, compared with those of its failure. I remember conversing with an old surgeon of eminence, who had had frequent opportunities of seeing this practice resorted to, and he told me that he had not himself known a single case in which it had been attended with advantage. But, at any rate, there would be a decided objection to it in this case; for if I were to remove much of the tibia with the saw, the severed ends would not come in contact again, unless I were to perform the same operation on the fibula; and this would be altogether a frightful operation, attended with considerable danger to the patient. What, then, can be done? Sir E. Home was accustomed to mention, in his lectures, delivered in this hospital, a remarkable case which was under the care of Mr. Hunter. A patient had an ununited fracture of the humerus, in which a false joint had formed. Mr. Hunter cut down upon the part, and having introduced a spatula, scraped the fractured ends of the bone; inflammation followed; lymph was effused, and became organized. Bone was deposited in its centre; and in a short time bony anchylosis took place."

We may now glance briefly at the case which gave rise to the preceding observations. It was that of a little

* Med. Gaz. July 26th, 1834.

boy, about five years of age, who had broken both bones of the right leg, near its centre, two years prior to his admission into St. George's. Bony union had not been obtained, and continued pressure, under, we believe, the superintendence of Mr. Amesbury, as well as the introduction of the seton, had been tried without effect. Under these circumstances, Mr. Brodie cut down upon the tibia at the seat of fracture, removed a ligamentous sort of substance that connected the extremities of bone, scraped the latter, and dressed in the wound with lint. He did not attempt a similar operation on the fibula, which was broken a little lower than the tibia, because it would be difficult, dangerous, and unnecessary.

II. CLINICAL REMARKS ON SOME CASES OF DISEASE OF THE URINARY ORGANS. By Mr. CÆSAR HAWKINS.*

Mr. Hawkins has communicated to the public some interesting cases, and some valuable observations on diseases of the urinary organs. We shall take the opportunity of noticing three instances of disease of the kidney, in connexion with stricture of the urethra. We do this in order to illustrate the pathology of that serious disease, and to display the changes in various portions of the urinary apparatus, that follow an obstruction to the passage of urine through the urethra.

CASE 1.—*Stricture—Thickening of the Bladder—Chronic Inflammation of the Kidney.*

John Weighell, æt. 49, was admitted into St. George's Hospital in August, 1833.

He had laboured under a stricture of the urethra for twenty years. When admitted, the smallest catgut bougie could not be passed. There was a hard cartilaginous tumor, inclosing a cavity in the perinæum. The urine was abundant, pale, highly alkaline; it contained a peculiar mucus, resembling a powdery matter, which slightly floated in it, and was intermediate in appearance between mucus and albumen. On applying heat, or adding nitric acid to the urine, its coagulation proved the presence of albumen. There was slight occasional pain in the loins, which, on several occasions, was mitigated or temporarily relieved by a blister.

Instruments were gradually passed through the stricture, but not into the bladder, their point being obstructed by what appeared to be an abscess in the prostate gland. The latter conjecture was supported by the circumstance, that a good deal of pus was evacuated separately from, and before the urine, the passage of which it occasionally obstructed. The progress was so far calculated to give encouragement, when a train of symptoms was established, which Mr. Hawkins has described with vigour and correctness. We shall venture to extract the description, and the commentary added by the lecturer.

"You have seen Weighell very nearly dying of a sudden increase of real disease, to a return of which he is still liable at any time. It was in January last that he became low-spirited and out of health; then he had occasional rigors, pain in the back and groins, with more difficulty in making water; then in a few days he had a great quantity of blood in the water, which came suddenly, and continued for two or three days; and before it ceased, there came away with the urine a very large quantity of pus, which continued for some little time, and then ceased. While he was at the worst, he lay in a state of listless half stupor, with a quick, feeble, intermitting pulse, and the brown tongue of typhus fever; and he had occasional delirium, and was frequently crying from extreme depression of mind, when not asleep and stupid. These symptoms continued, more or less, for nearly a month, when he began to revive and recover strength; and the symptoms I have mentioned, both local and constitutional, and as connected with the urine, gradually went away and left him as you now see him.

* Med. Gazette for June 21st and July 26th.

Now, what I believe to have happened during this time, was the formation and bursting of an abscess into one kidney, and that probably the right, from an affection of respiration, with pain on that side, which he laboured under for a few days. The discharge of pus from the kidney occurs in three different states—first a quantity is secreted from the tubular structure of the kidney, and from the infundibula and pelvis, without any cavity like that of an abscess, and while the cortical substance is only inflamed. I have seen this discharge take place suddenly, and to the amount of many ounces daily; so that it seemed almost impossible that it could have happened from the secretion from a mucous surface only; and yet dissection has shewn that it did so. Secondly, you find small quantities of pus partially confined in cysts, consisting of the infundibula and tubes, enlarged and dilated; these cysts communicating with the excretory tubes. Thirdly, you find circumscribed abscesses in the kidney, not communicating with the excretory tubes; even these, however, you can often trace to the commencement of the tubes, where a drop or two of pus, confined by adhesive inflammation, become the origin of larger collections of matter.

I judge that Weighell had a circumscribed abscess, from the rigors, and so on, *preceding* the purulent discharge, and because there was also a large quantity of blood before the pus, as if the wall of an abscess had been ruptured to give exit to its contents. If I am right on this point, the abscess has since probably filled up."

The treatment employed during this condition of stupor were stimulants, of course—a blister to the right side—and a blister, also, to the nape of the neck.

The sequel of the case may be briefly stated. The patient became gradually reduced in strength—emaciation made progress—about the 20th of June he was attacked with diarrhœa, attended with much general pain in the abdomen—and he died on the 6th of July, having suffered for a day or two from pain in the head, unaccompanied, however, with actual stupor. During the period that elapsed between the comatose attack and his death, the urethral symptoms continued nearly stationary. The suppuration from the abscess that was thought to exist in the prostate was diminished, and the cartilaginous tumor in the perinæum had increased. A catheter was occasionally passed.

Dissection. The cartilaginous tumor in the perinæum was placed anterior to the stricture, and contained a small abscess, communicating with the urethra. The stricture was itself broad and firm, white in appearance, and situated rather on the left side of the urethra. A catheter of tolerable size could be passed through it. The prostate gland contained an abscess, capable of holding a table-spoonful of pus. At the side of the verumontanum was an opening into the abscess, in which the extremity of the catheter had frequently been involved. The bladder was thickened to the extent of more than half an inch—its muscular fibres were prominent and enlarged, and its mucous membrane was dark-coloured, vascular, and folded into numerous little pouches. The ureters, the pelves of the kidneys, especially the left, and the infundibula, were in some degree enlarged, and their mucous membrane was inflamed. The secreting structure of both kidneys was condensed, and of a yellow colour; the left, which was nearly of its natural size, was more vascular and brittle than the right, which was diminished to half its natural bulk.

The chain of consequences resulting from the stricture of the urethra, and the lodgement of urine in the bladder, in the ureters, and in the pelves of the kidneys, are obvious even to the inexperienced pathologist. Perhaps it may be briefly, though not quite correctly, summed in the expression, that chronic inflammation was induced in all the portions of the urinary apparatus affected by the urinary accumulation. The case is interesting, because it informs us what we may expect, and what we should avoid. Mr. Hawkins judiciously dwells upon the circumstance, that pus may be secreted from the mucous membrane of the kidney, in a man-

ner and to a degree which might reasonably warrant the suspicion of a circumscribed abscess in that organ.

CASE 2. — *Stricture — Effusion of Urine—Inflammation of the Kidney.*

Pollard Tate, æt. 33, admitted June 27th. He had suffered from stricture, with occasional retention of urine, for six years prior to his admission; but he had not adopted any treatment for the malady. Five days previous to admission, he felt, when in bed, a desire to make water; but merely a little dribbled away with much straining, and subsequently it was only voided in drops. On the following day, the penis began to swell, and on the next, the swelling extended to the scrotum; on this day he had rigors.

On his admission, the penis and scrotum, the perineum, and lower part of the abdomen, were enormously swelled, and of a vivid red colour: he was in very great pain, with some fever, and the bladder was much distended with water.

"Now, I told you, some time ago, when speaking of effusion of urine, that I liked, if possible, to pass a catheter into the bladder, and in making the necessary incisions, to let one of them reach the instrument in the urethra, near the usual seat of the stricture. I found, however, here that the catheter would not at first pass, from the tense state of the parts, and from the quantity of sloughs in which the point was obstructed, even near the end of the penis; I therefore made several incisions in the scrotum and penis of considerable depth and length, and another in the perineum, down to the usual situation of the effusion; which, last, in fact, gave exit subsequently to some urine, besides that which came through the catheter. I gave him fifty drops of laudanum, and had him placed in a warm bath as soon as the hæmorrhage ceased. Two hours afterwards he was much more comfortable; the swelling was not above half the size it had been previously; and after some little difficulty, the catheter now entered the bladder, and drew off the water which distended it."

The skin was prevented from sloughing by the incisions—sloughs of cellular tissue came away—and though erysipelas supervened, it was mild: and all appeared to augur favourably for the patient. We should state that, four or five days after his admission, a calculus, like a grain of coffee in appearance and in shape, was removed from one of the incisions in the penis. It seems not unlikely that this was the indirect consequence of the stricture, and the immediate cause of the effusion of urine —sticking in the narrowed passage, it might totally obstruct it.

On the 3d of July, an unfavourable change was noticed. The patient became affected with sudden and complete prostration of strength, a copious perspiration, and coldness of the hands and feet. Stimulants were of little or of no avail in removing these alarming symptoms. On the 6th, there was slight diarrhæa, and a little tenderness of the abdomen, and on the day on which he died, the 8th, pain was experienced in one wrist-joint.

Dissection. "The bladder was nearly in the same state as Weighell's, much thickened, and reticulated, and inflamed, and contained a good deal of thick bloody urine. The ureters were very much dilated and inflamed, and both of them were twisted and obstructed near the kidney, as you may see, by other preparations in the museum, is often the case in stricture. The pelves of the kidneys, and infundibula, were much more distended than in Weighell; in a high state of inflammation; and the kidneys themselves were coated with thick yellow lymph; and all these parts were on both sides full of a dark, bloody purulent secretion, quite pulpy in consistence, and which had passed down in great quantity into the bladder. The structure of both organs was inflamed, but not yet condensed or diminished in bulk, as in Weighell. In the right kidney, where most lymph had been deposited, one or two of the infundibula looked like distinct abscesses. Subsequent examination, however, shewed that this was not the case, the cavities all communicating with the pelvis of the kidney by continuous mucous surface."

Mr. Hawkins directs particular attention to three important circumstances:—the absence of distinct symptoms characteristic of renal disease—the abundant secretion of purulent matter from the mucous membrane of the kidney and ureter—the sudden supervention of symptoms of prostration, and the speedy occurrence of a fatal termination. The first should teach us caution—the second should enlarge and correct our opinions—and the third may diminish our surprise at the comparatively sudden manner in which some patients die after the operation of lithotomy, or during the progress of a case of stricture, when the local disease appears to be yielding in a satisfactory manner.

III. Report on Hernia, consisting of Cases extracted from the Note-Book of Mr. Cæsar Hawkins; with Clinical Remarks.

There are few subjects which on the whole present such a variety of interesting points for consideration, and in which the result of the surgeon's reflexions are of more serious importance than the treatment of hernia; for ourselves at least we can safely assert that we scarcely ever saw a case in which we did not learn something, or in which some interesting or novel point did not occur to strengthen or modify the opinions we had seriously formed. The most important point however in the whole subject is the conviction on our minds of the propriety of operating at an early period of strangulation; often have we seen a patient sink under the disease for want of an operation, either from the ignorance or timidity of the practitioner, but it is very seldom indeed that we have witnessed the death of the patient purely from the operation having been performed. Even in the practice of hospitals we can ourselves recollect a complete change in the treatment of these cases, most of which when presented at the hospital are already of considerable standing, and yet when we began our studies we can recollect repeated consultations being held upon them after admission, before recourse was had to an operation; now on the contrary, if fair trials had been made beforehand, or if the strangulation has already lasted some time, no time is lost in what are then most probably only fruitless attempts at reduction, but the surgeon at once proceeds to the certain relief afforded by the operation; and nothing can be more striking than the comparative result of such cases. How little the system is affected by the operation when performed soon, the following case will shew.

1. *Strangulated Hernia—operation early.*

Charlotte Kitter, æt. 34, admitted Feb. 19th, 1834. Catamenia present. Has had femoral hernia for some years, reducible till 10 o'clock, a. m., after which attempts were made to reduce it without success, and in the evening she was sent to the hospital. There was a femoral hernia of some size, turning over Poupart's ligament, very hard and firm at the ring, and the tumor itself tender and painful. The chief circumstance Mr. Hawkins said, in his opinion, to be attended to in strangulated hernia, is the state of that part of the protruded bowel or omentum which is *embraced by the sac*, for if that portion is very hard and tender, it is not very likely to be reduced, and the part below may be quite flaccid and unattended with pain, although mortification may be going on; a portion of tightly strangulated bowel being defended by omentum or by a quantity of fluid in the sac below the ring. For this reason Mr. H. thought it right in this case to proceed at once to the operation, without further trials to reduce it, which was done about twelve hours after the strangulation. The sac contained about five inches of intestine, which was dark coloured, but quickly recovored its proper circulation when the stricture was divided, which was very broad and tight. After the bowel was returned a large quantity of serous fluid came down from the abdomen. She was then left quiet for the night.

20th. An injection was given, and afterwards three doses of Epsom salts

and infusion of roses, and the bowels still continuing confined, three grains of calomel, followed by some castor oil, were also given. In the evening the bowels had been freely open, and no pain whatever was felt.

22. Beef-tea was given, and the next day fish, the patient not having had a single bad symptom. On dressing the wound it was found to have almost united by the first intention. A small portion of skin, however, near the incision, looked as if it was going to slough from the force used in the taxis, which did actually take place. The patient however quickly got well.

2. *Incarcerated Omental Hernia—no operation.*

But while strangulated hernia cannot be operated on too soon, there are frequently occasions for the exercise of judgment on the part of the surgeon in determining whether strangulation is actually present or not. An old and large intestinal hernia for instance frequently causes attacks of severe pain, constipation, tenderness of the tumor, sickness and vomiting, and yet no operation may be necessary in such case, the bowel being merely *incarcerated*, i.e. its functions impaired by its confinement, (generally from some imprudence in diet,) and yet the stricture not being tight enough to endanger the circulation in the protruded viscera; in which case the symptoms may be combated by appropriate means, and the temporary obstruction overcome. It is in cases of this description too that the operation becomes really dangerous, from the size of the tumor, and from the adhesion generally formed, and hence the propriety of that line of practice recently again recommended by Mr. Key, though so often lost sight of, viz. when strangulation actually takes place, to divide the stricture without opening the sac. With omental hernia again, although an operation is sometimes as urgently required as for intestinal hernia, yet there is no doubt that as a general rule more room is afforded for the trial of such means as may succeed in removing the effects of the stricture without an operation. There is danger, indeed, of a portion of bowel being concealed in a mass of omentum, so that if from the *symptoms* there appears reason to fear such an occurrence, the surgeon should not trust to the feeling only of the tumor, but rather operate unnecessarily than incur the risk arising from delay; if, on the other hand, the symptoms are mild, he may wait till more urgent necessity for operation arises, and so perhaps avoid it altogether.

Ann Tenison was admitted under the care of Mr. Hawkins, Nov. 15th, 1833, with femoral hernia. She had had rupture for six months, and the present tumor has continued down for the last fortnight, producing no pain or inconvenience till four days ago, when symptoms like the present came on, and after a few hours suffering again left her; they returned, however, a second time, last night. The tumor is not very large, it is moveable and circumscribed, somewhat elastic, and has a large gland over it; it receives a slight impulse on coughing: is very tender, and painful even when not handled,—she has also a good deal of pain in the back and around the umbilicus. The bowels have been open since the tumor has been down, and she has no sickness;—tongue white—pulse not very quick.

On her first admission she was placed in a warm bath, and had 20 ozs. of blood taken from the arm, and an unsuccessful attempt was made to reduce the tumor. Mr. Hawkins saw her in the middle of the day, and thought that the tumor was omental only—that the stricture was not very tight, from a slight impulse being still perceptible on coughing—that it was incarcerated, and not strangulated, and consequently that an operation would probably not be necessary; in which opinion the other surgeons who were in the hospital concurred.

A dozen leeches were applied over the tumor, an injection administered, and some aperient medicines given by the mouth. By this treatment the pain was reduced, and the bowels acted upon several times; she slept well during the night, and had no return of symptoms, and in a few days she was order-

ed to wear a truss upon the tumor, with a not very forcible spring, and the pad not so convex as usual.

3. *Wearing a Truss upon an irreducible Hernia.*

In speaking of the propriety of wearing a truss over the omentum in the case just related, Mr. Hawkins said that if care was taken not to use too great pressure, nor at first to continue it for too long a time at once, there was no danger of producing inflammation or other mischief in the part, and that the truss served effectually to prevent further protrusion, even if it did not succed in reducing the hernia altogether. He then related the following case to shew that the same treatment was also applicable to intestinal hernia, and being an interesting one, we preserved notes of the account. A young gentleman, about 13 years of age, was under the care of a physician for some time, in consequence of great disturbance of the bowels, and consequent derangement of the whole system, the cause of which was not evident till the boy complained of pain on one side of the abdomen, when it was clear that the testes had not yet reached the scrotum, and the pain was found to be just above the ring on one side. I was then asked to see him, and ascertained that without having come through the external ring, there was an effort to protrude on the least coughing or other exertion, the bowel apparently filling the inguinal canal on both sides. I then directed a double truss to be worn not pressing upon the external ring, where the testis would have been compressed, but having a broad pad bearing upon the course of the inguinal canal. The boy immediately improved in health, and after wearing the truss for about a year, the testes had reached the scrotum, and the incipient double inguinal hernia was completely cured. Something of the same kind as this Mr. Hawkins said was very common about the time of puberty, but the same boy was about a year afterwards an example of a circumstance which is comparatively very rare. He was observed to have very great irregularity in the action of the bowels, which were sometimes obstinately constipated for several days together, resisting the strongest purgatives, and only yielding at last to repeated doses of castor oil; the attack of constipation being frequently succeeded by diarrhœa for some time, during which time the evacuations frequently shewed a good deal of blood. Being under the care of the same physician, he frequently examined the abdomen, and I also saw him with the same object, but it was evident that there was nothing now wrong in the inguinal canals, and no complaint was made which led us to suppose that any other hernia existed to account for the severe symptoms he occasionally laboured under, and which had a good deal affected his health. At last, however, he fortunately received an accidental kick in the groin from a child, which drew attention to this part, and then a very small body was felt quite deep under Poupart's ligament, which was soft and slightly tender, and in which it seemed that our patient had occasionally heard something like the noise of air. This immediately excited our attention, as perhaps a femoral hernia, although, if so, it must be a very small portion of one side only of the bowel, not including the whole calibre of the canal, and scarcely equalling a common gland in size, and therefore, as it seemed, scarcely sufficient to account for the symptoms he had laboured under for several weeks, as no pain whatever had been felt in this part. Mr. Brodie also saw him with me, and said that he had never seen anything of the kind before. We agreed, however, that he should wear a slight truss over the part for some time. The effect of this was quite surprising, for the action of the bowels directly became regular and the health better; in a short time, nothing could be felt in the part, and he soon after left off the truss without having since had any return of similar symptoms.

4. *Rupture of Intestine by a Blow upon a Hernia.*

The records of forensic medicine possess more than one such case as the

following, and shew the danger of leaving a hernia unreduced, and unprotected by a truss, however common such carelessness unfortunately is in all classes of life.

Henry French, æt. 55, admitted Jan. 11th 1834, under the care of Mr. Hawkins. This man had been leading a horse drawing a cart, when the animal took fright, and ran against some iron railings, by which means he was squeezed between the railings and the wheel. He had slight scalp-wounds in one or two places, and a severe contusion of one arm; but what he chiefly complained of was severe pain in the abdomen, especially on the right side, where there was an inguinal hernia, that he thinks was down at the time of the injury, and which came down also several times after his admission. There was no great anxiety or collapse when first seen, the pulse was 84, full and soft. Leeches were applied to the part, and saline and antimonial medicine ordered. The next day he seemed pretty comfortable, and said he was relieved by the leeches, though there was still some tenderness. Leeches repeated, with aperient medicine, as the bowels were not open. Pulse 90 and small. In the evening he felt better, though some distension of the bowels was perceived. Between 12 and 1 o'clock the house-surgeon was called up to him, and found him in very great pain over the whole abdomen, with exquisite tenderness to the least pressure—constant retching, much distention of the abdomen—the skin cold, and the pulse hardly perceptible;—in short, the most acute peritonitis had evidently come on. He continued much in the same state till about three, when he aroused himself, and asked for some warm gruel to drink, but before the nurse could procure it he had fallen back, and expired about forty hours after the injury.

On examination the next day, nothing was found in the hernial sac, but in the right iliac fossa a portion of small intestine was seen in a cavity formed by adhesion from recent lymph, and inclosing a quantity of lymph and pus and a little fæcal matter;—the bowel was slightly ecchymosed, and a small rupture of its coats was seen about one-third of an inch in length. The whole peritoneum was inflamed and coated with lymph.

The hernial sac presented a curious complication, that in an operation might have caused some difficulty. Below the sac was a hydrocele, and behind the sac a large varicocele, and in front of it was a fatty tumor about 2½ inches long, and surrounded by a smooth cyst, in which it lay loose like a portion of omentum in a hernial sac; so much so indeed, that it was thought at first there must have been a double hernia.

5. Hernia produced by a Blow.

William Cooper, æt. 20, admitted July 29th, 1834, under Mr. Hawkins, with the following history. He said that a fortnight before, a person had kicked him on the groin and scrotum, and driven the testicle up into the abdominal ring, whence it did not return for an hour, and that then a rupture had come down with it; that the bowel was supposed by his medical attendant to have been slightly strangulated at first, as it did not go up again for two days, during which time he had a good deal of pain, and complete constipation, and that he had had much pain in the abdomen since that time. There had been no swelling whatever of the testis, so that a mistake as to the nature of the case could not have been made as to this point, and he said that whenever he walked since the accident the rupture had come down with some pain, and receded again on his lying down. On his admission there was a good deal of tenderness of the abdomen, especially on the right side, but without any hernial protrusion. This pain was increased by exertion, especially when he made water, which he did with more difficulty than usual—the spermatic cord seemed full and tender, but the testis was healthy. He had also some degree of fever.

A calomel purgative with castor-oil was given, and some leeches applied to the abdomen, by which he was somewhat relieved.

Sept. 1. Some pain complained of chiefly in the epigastrium—feverishness

lessened.—Purgative and leeches repeated.

2d. Not able to make water at all, and the catheter drew off a small quantity of dark coloured water. Calomel purgative repeated.

3d. Not much pain—pulse returned to its natural state. Sickness and uneasiness in the epigastrium, with some bilious vomiting. Effervescing saline draughts. Calomel half a grain, and opium half a grain, to be taken night and morning.

7th. Some return of pain, and considerable nervous anxiety—no fever—leeches repeated.

8th. Pain all gone.

13th. No pain in any part. The hernia has not been down since his admission. Reported cured.

Treatment after Operation for Hernia.

There is much more room for surgical skill than is usually imagined after the operation for hernia, for it is by no means an universal rule that inflammation is the chief danger to be guarded against. No doubt the effects of the stricture or of the stricture and the operation together are very often to produce rapid and fatal inflammation of the peritoneum, but we are sure that we have seen some patients sink after the operation, in whom not a trace of inflammation has been present, and who might probably have been saved by a different line of practice to that which we saw adopted. We recollect some years ago two very instructive cases which we saw under Mr. Hawkins's care, an account of which will be found in the Medical Gazette, Vol. VI., p. 927, both of which were probably saved from the immediate effects of the strangulation of several days' duration by being well supported after the operation. These are less common perhaps than cases in which there is a mixture of chronic inflammation with constitutional debility or irritation. The different practice to be adopted according to the variation of symptoms in such cases is of material importance therefore; and as it is a point to which Mr. Hawkins often directs the attention of the pupils, we have selected the following cases to illustrate some of the circumstances occasionally met with.

6. *Operation followed by great Debility and Irritation.*

Susan Dixon, æt. 44, admitted Oct. 22d, 1833, under the care of Mr. Hawkins, with a femoral hernia of some size, turning upwards over Poupart's ligament. She states that she has suffered from a rupture for 13 years, during which time she has never worn a truss; she has never been without a swelling in the groin, which has increased after any exertion, and she has suffered from frequent "bilious attacks." A year ago the rupture was strangulated, though without such severe symptoms as at present, and at that time the tumor was larger than it now is. She was seized with the present attack while scouring the floor on Saturday morning the 19th, (three days and a half ago,) since which time pain in the bowels, vomiting, and excessive languor have continued almost without intermission till her reception in the hospital. During this time she was treated for inflammation of the bowels, with 40 leeches, purgative medicines, and a large blister!—the hernia not having been discovered till this morning. On her admission she complained of great tenderness on the tumor and in the abdomen, especially in the part immediately around the tumour;—there is very distressing and constant vomiting of dark brown substance, partly fæcal in smell;—the countenance sunk and sallow, and with an expression of great weakness and anxiety. Bowels not opened since Friday the 18th—tongue white and furred—pulse quick and weak.

The patient was kept in a warm-bath for a considerable time, but without a reduction being effected; Mr. Hawkins therefore proceeded to an operation.—The steps of the operation were remarkable for the quantity of fluid contained in the fascia propria, and its exact resemblance to a hernial sac, especially as the real sac was so exceedingly thin and transparent, that when the fascia was opened and the fluid let out, it

looked like the immediate peritoneal investment of the bowel. So distinctly was this part seen through the sac that many spectators thought the operator was cutting into the bowel, especially as it was some little time before Mr. Hawkins could satisfy himself of the exact nature of the parts, a great number of serous bands at the reflexion of the fascia propria adding still farther to the obscurity, as they looked exactly like adhesions between the bowel and the hernial sac, for there was no distinction in appearance between the outer surface of the real sac, and the inner surface of the fascia propria, both being as smooth as any serous membrane. When the real sac was finally opened, three or four inches of bowel were seen, which was very dark, softened and ecchymosed, especially where the two folds of intestine were embraced by the stricture; the bowel being pulled down after the division of the stricture to examine its appearance, which shewed very strikingly the changes produced by the stricture on the part below.

23d. The operation being performed in the evening, she was left quiet during the night, and in the morning an injection was administered, which brought away a good deal of fæces. The sickness was instantly removed by the operation, and had not returned. Pulse fuller but weak and slow, and intermitting every 20th beat.

Some beef-tea allowed.

℞. *Calomel*, gr. iij. *statim.*
Mag. sulph. ʒij. *Aquæ menth. pip.* ʒiss. *M. 4tis horis sum.*

24th. Streaks of blood in the evacuations procured by the medicine, which Mr. Hawkins said he had several times seen where the bowel was much injured by strangulation, and he recollected one case in which more than a pint at a time had thus come away, the patient however ultimately getting well. The pulse is more slow, and intermits much more frequently. The water requires occasionally to be drawn off by the catheter. Abdomen tender and full, as if from flatulence.

To take a little white wine, and some brandy occasionally in water and with arrow-root.

℞. *Sp. æther. nitros*, ʒj. *Mist camph.* ʒx. *M. 6tis horis.*

Vespere. Feels stronger and better, but complains much of flatulence, amounting almost to tympanitis. P. intermits less frequently.

Ordered a large poultice of chamomile flowels in hot water, which gave great relief to the abdomen.

25th. Bowels open, a little blood still coming away. Tympanitis continues, by which the abdomen is rendered of great size. Pain and tenderness however less. P. stronger and fuller, and not at all intermittent. Tongue clean. Countenance less anxious. Mr. Hawkins ordered her to *lie upon her side*, which assisted in some measure in expelling the wind. Some relief was also given by the introduction of a *large catheter* into the rectum, through which some wind came away, which the sphincter otherwise retained. Most relief, however, was subsequently given by binding a broad *flannel bandage* pretty tightly round the abdomen. The wound dressed and looking healthy, though suppurating in part.

℞. *Haust. salin. ammoniat.* ʒiss.—
Træ. opii, ℥ v. *M. 6tis horis.*

27th. Better—bowels open—pulse stronger—tongue clean.

28th. Sickness last night, otherwise much the same. Tympanitis a little less. Bowels not open, and some solid fæces felt in the colon.

℞. *Ol. ricini*, ʒj.
Rep. pil. calomel, hss.

30th. Still a good deal of pain in the abdomen occasionally, to which a *mustard poultice* is frequently applied with advantage for a few minutes at a time. Wound opened again partly in consequence of suppuration.

Nov. 5th. She has gradually improved, and feels nearly as well as before the strangulation, being still however very weak and languid.

She has continued her wine and brandy, and as much food as she can take.

℞. *Infus. cascar.* ʒiss. *Acid sulph. dil.* ℥vj. *Tr. gent. c.* ʒss. *M. ter die.*

A sinus afterwards formed to some distance from the wound, which required

to be laid open, but on the 28th she went out cured.

7. *Operation twice performed—Mortification of Bowel—severe Symptoms by Separation of Slough?*

James Wheatley, æt. 46, admitted July 21st, 1831, with strangulated hernia, for which he had worn a truss since he had been operated on by Mr. Hawkins for the same hernia, about a year ago; but he had allowed the rupture to come down occasionally, and it had not gone up again since Monday (three days ago), when after some exertion, following a hearty meal of potatoes, a large portion of bowel had descended. Vomiting came on two hours afterwards, and had continued till the present time, and hiccough yesterday.

He complains now of violent griping pains in the abdomen—constant retching and vomiting of stercoraceous matter, with occasional hiccough. Abdomen tender around the hernia, and still more in the epigastrium, which is the chief seat of his pain—no motion since Monday—countenance anxious—pulse 76.

He at first refused to have the operation performed, but submitted in the afternoon, after ice had been applied for some time. Mr. Hawkins performed the operation with some care, in consequence of the former operation, and found the intestine in contact with the fascia, the peritoneal sac having been obliterated in front by the previous incision, so that, in the lower part of the sac, the bowel was closely adherent to the common integument. The intestine consisted of about five inches of the smaller bowel—it was of a bright red colour, from inflammation, and thickly coated with recent lymph, and, upon separating the adhesions, a spot, of the size of a shilling, was seen to be quite black, looking like coagulated blood, and without any glossiness, and the coats of the bowel very thin. After a little consideration, Mr. Hawkins returned it into the abdomen observing that the mortification of so small a portion could often be effected within the abdomen, so that the slough separated into the canal, and a better line was presented than if the surgeon was to open the bowel, and leave an artificial anus; and that, if the requisite adhesions did not take place for this object, still it was generally found that the mortified spot remained at the internal ring, and, consequently, that the fæces did not necessarily become extravasated into the abdomen, but could very often come away by the wound; the case demanding great attention, however, about the period when the slough would probably separate.

The vomiting, and hiccough, and pain continued after the operation; and, about four hours afterwards, 20 leeches were applied (fomentations not appearing to give any relief), and the following mixture—

℞. *Magn. sulph.* ʒjss. *Acid. sulph. dil.* ℥lv. *Aq. menth. viridis*, ʒjss. *M. ft. haust. 2dis horis sumend.*

26th, 8, a.m. Tongue more dry—pulse 86, weaker—bowels just opened twice, the evacuations being very dark and fetid.

1, p.m. All pain and tenderness gone—hiccough continues—pulse very low.

Allowed beef-tea and arrow-root in small quantities. Ordered to continue the draught, and, in the evening, to have an injection of gruel, and to take some pills, with *Calomel*, gr. iij. and *Pil. sapon*, c̄ *Opio*, gr. v.

23d. More comfortable. Pulse a little stronger—bowels not at all free.

Contr. Haust.

24th. Tongue clean and moist—no pain or tenderness—complains only of hunger, but Mr. Hawkins allowed no solid food.

25th. Wound dressed, and found almost wholly united by the first intention.

27th. Some heat of skin—bowels very little open. Complains of griping pain.

Appl. fotus papav. Contr, haust.

29th (8th day). Quite comfortable till this morning, about 1 o'clock, when he was attacked suddenly with violent pain and tenderness in the abdomen—constant vomiting, which soon became stercoraceous—tongue dry—pulse very small and rapid—great flatulence complained of.

An injection was given, which brought away no fæces—his mixture was repeated every two hours, and the abdomen fomented, without relief.

10, a.m. Symptoms increasing.

Appl. Hirud. xxv. *abdomini.*

1, p.m. Mr. Hawkins saw him, and found the symptoms not relieved by the leeches. Abdomen, quite tympanitic—very anxious.

V.S. ad ʒxij.

℞. *Calomel*, gr. v. *Opii*, gr. j. *M. statim.*

℞. *Aquæ menth. pip.* ʒjss. *Sodæ tartrat.* ʒiij. *Magnesiæ*, ʒss. *M. 2dis horis donec alvus respond.*

6, p.m. *Calomel*, gr. v.

10, p.m. Pain lessened considerably—has just had a copious motion—the retching and hiccough continue—pulse small and fluttering—extremities cold—surface of body bathed in cold perspiration.

Appl. Empl lyttæ magn. abdom.

℞. *Calomel*, gr. iij. *Opii*, gr. ij. *stat.*

30th. Has a good deal rallied. The extremities began to get warm soon after the application of the blister. Skin now moist and warm—vomiting—pain and tenderness ceased—bowels discharging chiefly secretions without fæces.

Contr. Haust. aper. salin.
Repr. Pil. vesp.

31st. *Repr. Pil. et Haust.*

August 2d. Has very much improved, but has had several returns of vomiting and pain to a slight extent—bowels not free.

℞. *Pil. hydrarg.* gr. iv. *Pil. sapon. c̄ Opio*, gr. iij. *Extr. coloc. comp.* gr. v. *M. o. n. s.*

℞. *Olei ricini*, ʒss. *mane sequente. Beef-tea, &c.*

5th. Was again attacked this morning with vomiting and griping, without pain.

℞. *Calomel*, gr. iij. *P. opii*, gr. j. *M. statim.*

Enema terebinth.

1, p.m. Vomits *stercoraceous* matter—tongue dry—hiccough—not much pain.

Repr. Pil. Cal. et Opii, statim et h. s.

Vespere. Symptoms continue—extremities cold.

Vini albi. ʒij. *Calomel*, gr. iij. *c̄ P. scamm*, gr. ij. *statim.*

Olei ricini ʒss. *mane.*

6th. Vomiting continues. Evacuations not facal for some time—surface still cold.

Vini, ʒiv. *Ova.*

Empl. lyttæ abdominis, et postea Ung. hydrarg.

7th. Beginning to rally a little—vomiting continues. *Burnt brandy*, ʒiv.

9th. Going on well. Continues his wine and brandy, and allowed also some porter.

13th. Going on well till to-day, when some griping returned, with vomiting, and again on the 20th, at which time the abdomen was very much swollen and tympanitic.

It is unnecessary, however to detail the rest of the case, as it went on nearly in the same way for some time longer, before he was finally cured, during which time the treatment of the case was nearly the same—supporting the general strength, whilst the action of the bowel was restored by calomel and opium, and purgatives, &c.

Mr. Hawkins attributed the symptoms to the separation of a slough from the bowel, by which inflammation was produced, with a great deal of irritation and disturbance of the functions of the bowels from the consequent narrowing of the canal at that part.

LONDON DISPENSARY.

BEST MODE OF TREATING MAMMARY ABSCESS.

Mr. Robinson has communicated six cases of mammary abscess to the Medical Gazette,* for the purpose of displaying its history and treatment. We presume that the greater number of our readers are tolerably familiar with the former—that few need be informed of the occurrence of common abscess in the breast, as in any other organ or tissue—and that it is not necessary to

* July 12, 1834.

describe at any length the mode in which obstruction of the lactiferous ducts may occasion inflammation, suppuration, ulceration of the integuments, and fistulæ.

The question which has been disputed in reference to the surgical treatment of this complaint, is the propriety or otherwise of an early opening. Mr. Robinson's observations on this head are not very copious nor precise. They are as follow.

"The third case proves, that where the abscess is owing to distention of the lactiferous tubes, the formation of fistulæ may sometimes be prevented.

The fourth case shews the result of opening by the lancet, and opening spontaneously. The former plan will generally be found the best, especially in deep-seated abscess. In this case the opening made by nature was large, and the contents of the abscess were evacuated all at once, which is more favourable than usual; for generally the opening is no larger than a pin's head, and is slow in healing up, the skin being commonly much destroyed before it gives way. Even in this case that abscess was much longer in opening, and more painful, which burst spontaneously, than that which was opened by the lancet.

The fifth case more forcibly proves that the artificial opening is preferable to the opening by nature; for the first abscess being opened by the lancet, was healed in three days; whereas that which broke of itself was much slower in healing, and was slightly fistulous.

This also points out the necessity of watching these cases: the woman was desired to call on me the following day, instead of which she allowed three days to elapse; otherwise I believe the fistulæ would have been altogether prevented.

The sixth case shews this disease in its most distressing and tedious form: the breasts were permitted to become over-distended with milk; both breasts were inflamed throughout; numerous abscesses, implicating the lactiferous tubes, followed; and she suffered severely for ten weeks.

The two last cases prove the great advantage of pressure (after the inflammatory stage is gone off,) in obliterating fistulous canals—a plan which will in many instances prevent, if it does not altogether supersede, the necessity of extensively laying open the breast, a custom which used to be resorted to formerly for the cure of sinuses, and which is even in the present day, I believe, occasionally adopted."

These remarks embody little more than the usual recommendations and the common practice. The most annoying circumstance connected with abscess of the mamma is the disposition to separate processes of suppuration, or, rather, to the formation and collection of matter in several portions of the same breast. They redound in some degree to the discredit of the surgeon, and form a serious source of distress to the patient.

It has been noticed in cases of diseased absorbent glands, and even in abscess of the cellular tissue, that suppuration does not always form in a single point, nor appear at the commencement inclosed in a single cavity. On the contrary, it has been found that it sometimes begins in several distinct portions of a gland, and that some time elapses before one common abscess is produced. The practical rule has been deduced, to wait till such a collection has occurred before an artificial opening is resorted to. If the surgeon operates too early, he has to open in succession several abscesses instead of one.

Our own opinion is, that the fact should always be remembered by the surgeon, and that by it his practice should be mainly guided. Yet we think that too much stress has been laid upon the one, and that the other has been carried rather too far. In cases of venereal bubo, if the surgeon declines to open the abscess until a large suppurating cavity is formed, he will probably endanger the vitality of the integument, and certainly protract to an unnecessary extent the duration of the complaint. Our readers will find more detailed observations on the management of suppurating bubo in another place.

We suspect that the cases of mammary abscess and suppuration in a strumous or venereal gland are not altogether analogous. In the instance of the gland its whole texture is diseased, and will probably be invaded throughout by suppuration. But the mamma is differently circumstanced. The lactiferous tubes are obstructed in one part — distention, inflammation, and suppuration in that part are the result,—and there appears to be no necessity why other portions of the gland should be involved. That they *are* so will probably be found to depend upon another cause. The gland is composed of numerous lobules, with adeps and cellular tissue interposed. Inflammation occurring in one part of the gland may readily extend along the cellular processes to another. The same thing would seem not unlikely to ensue, if matter were confined, or if it had not a free exit: and such is actually the case.

If these considerations are correct, an early opening of a mammary abscess is desirable. We are convinced, for our own parts, that it is so. We have treated many cases of this complaint, and were at first annoyed, as all surgeons have been, by repeated suppurations and ulterior sinuses. It appeared to us that these depended on a simple opening not sufficiently evacuating the abscess. After some practical experiments we adopted the following plan with much success.

Having satisfied ourselves that suppuration was actually established, we made with a lancet as dependent an opening as circumstances would admit, a vertical puncture being generally preferable to a horizontal one. We then introduced a probe into the cavity of the abscess, and ascertained if any sinus extended from it to another portion of the breast—or if the point of the probe could be made to project beneath the skin, in a more dependent spot than the puncture. If either was the case we cut on the extremity of the instrument, made its point project through the incision, tied around it a narrow piece of tape, or a silk ligature, withdrew the probe, and thus established a small seton between the opening originally made and that obtained by cutting on the probe, at the most dependent portion of the abscess. If more than one sinus extended from the latter, or if its formation or situation was such that one dependent opening was insufficient to empty it completely and at once, another incision was made upon the probe in the requisite direction, and another seton passed in the same manner as the former. The whole should be done at one operation, and since we have adopted this method of management, we have not been annoyed by repetitions of abscesses or formations of sinuses. We have found it in fact a great improvement in the treatment of this painful and troublesome affection. The operation is rather more severe at the time, but when once performed, it prevents the necessity in almost every instance for others. A patient will go through one with fortitude, but her spirits are broken and her strength of mind is shaken by its frequent repetition.

DR. STOKES' LECTURES ON CEREBRAL DISEASES.*

Neuroses—Encephalitis—partial Cerebritis—Phrenology.

Dr. Stokes has made many judicious observations and reflections on that mysterious class of diseases termed the neuroses. Those who look merely to affections of the brain and spinal marrow, as constituting the neuroses, take a very limited view of the subject. The nervous influence pervades every structure in the body, and deranges as well as presides over every function. In every disease, however structural or even mechanical, we may be assured that the nervous system of the part or the whole is affected.

"If we take, for instance, a case of gastritis, or hepatitis, we find a lesion of function in the nerves of the respec-

* London Med. and Surg. Journal Nos. 124, 125.

tive organs, which, in certain cases, seems local, but if the inflammation be intense and the fever high, we have superadded to this a sympathetic affection of the brain, or spinal cord. The same thing applies to all forms of local disease, for in all there is an affection of the nerves, either confined to the suffering organ, or extending to the whole system."

We find that affections of the cerebro-spinal system of nerves differ very materially from those of the ganglionic nerves. Most terrific and fatal diseases of the medulla spinalis may occur, without any disturbance of the mental functions; but these last seldom remain unaffected when the brain, especially its surfaces, become diseased.

"To follow up this point, suppose we take the diseases of the brain itself as compared with each other; we find that their symptoms vary according to the locality, so that whether we look to physiology or pathology we must consider the brain as consisting of several distinct parts, and not as an inseparable whole. It is admitted by many writers of high authority, that there is a difference between the symptoms of disease affecting the periphery, and disease affecting the central parts of the brain; and there is reason to believe, that we may be able in many cases to diagnosticate affections not only of the centre and periphery of the cerebrum, but even of other parts of the organ."

This is rational doctrine, and although it may be ridiculed by the antiphrenologists, as auscultation was by the anti-stethoscopists, we are convinced that the doctrine will gain ground as pathology advances.

Although there are several organic affections of the spinal marrow attended by pretty regular symptoms, and by which they may generally be recognized, yet, unfortunately for the practitioner and pathologist, there is a host of other nervous disorders, unconnected with any appreciable change of structure in the nerves or the nervous centres.—Epilepsy, tetanus, hydrophobia, chorea, and hundreds of other complaints, for which we have not even names, present themselves to the memory of the practitioner, and remind him that he has no insight into their pathology. They are lesions of function—the organic cause, if any, being unknown!

"No one can deny that neuroses are very different from organic diseases of parts. If we compare them with that class which is most familiar to us,—the inflammatory affections, we find a remarkable difference. In the first place, the neuroses may be brought on by causes not reckoned among those commonly capable of exciting inflammation. In the next place, their invasion is sudden, and their progress rapid; they arrive at their acmé in a very short period of time, and subside rapidly. These are characters which do not belong to the ordinary forms of organic disease. Again, we often observe the utmost intensity of nervous pain without the coexistence of swelling, redness, or heat, of the part affected. We find, too, that they are not to be subdued by the antiphlogistic plan: on the contrary, several of them are either relieved or cured by an exactly opposite line of practice; and many cases which would appear to demand the lancet are known by long experience to be most benefitted by stimulants. Lastly, the most accurate and well-conducted investigations of pathological anatomy have failed in demonstrating the slightest organic change in these cases,—at least, where changes are found, these are *neither constant, competent, nor commensurate with symptoms;* so that whether we compare the information we derive from symptoms, or the result of pathological anatomy, we find a great difference between neuroses and organic diseases. It may be said, that though they are not inflammatory affections, they have some resemblance to them. This, however, is only a gratuitous supposition; for even in the very worst cases they present nothing analogous to the result of inflammation, and the brain and spinal cord are as free from perceptible organic change in the majority of cases of fatal tetanus and hydrophobia, as they would be in nervous affections of a slight and transient character."

Dr. Stokes proceeds to the consider-

ation of—1st, local inflammation of the brain—2d, general phlogosis—3d, mere sanguineous congestion—4th, apoplexy—5th, paralysis.

Our author believes that inflammation of the membranes of the brain may be sometimes distinguished from phlogosis of a portion of the cerebral substance: but when the whole substance of the brain is inflamed, our means of diagnosis fail. The distinction, however, is not of very material importance, in a therapeutical point of view. We pray attention to the following extract.

"If we inquire what are the symptoms of membranous inflammation of the brain, as laid down in books, we shall find them to be the following:—pain, delirium, convulsions, alteration of sensibility and coma. These are the symptoms which are generally given as characteristic of arachnitis; and it is quite true that they are observed in many cases of the kind. But the person must be dull indeed who thinks that such symptoms imply nothing more than an inflammatory affection of the membranes of the brain. Take for instance one of the most prominent symptoms—delirium; what does this imply? that the portion of the brain which discharges the functions of intelligence or mind has been injured, and is rendered incapable of performing its office. No one will venture to assert that the membranes of the brain are the organs of thought, and that the delirium proceeds from *their* morbid condition; such a notion as this could not be entertained for a moment. What then are we to suppose? One of these two things—either that there must be inflammation of the substance as well as of the membranes, or that the substance of the brain must be affected in a neurotic manner without any actual inflammation. As far as delirium is concerned, it appears to me to be quite impossible to distinguish between inflammation of the brain generally, and of its membranes. The same rule applies to the other symptoms, convulsions, alteration of sensibility, and coma. I repeat, that all we can say on this subject is, that in such cases there is either inflammation of the substance as well as the membranes of the brain, or that, with the membranous inflammation, there is a neurotic condition of the substance of the brain. Yet who, in such cases, can affirm with certainty that the symptoms of derangement of the substance of the brain are merely neurotic, when inflammation is admitted to exist within the cranium, and when we know that the two inflammations commonly co-exist?

The fact of delirium occurring so frequently in inflammation of the membranes of the brain, is of considerable importance, as showing, not that membranes of the brain have anything to do with intelligence, but as supporting the opinions of those who believe the periphery of the brain to be the seat of the intellectual faculties, and here is a fact which, as far as it goes, is in favour of the doctrines of phrenology. If we compare those cases of cerebral disease in which there is delirium, with those in which it does not occur, we shall find that it is most common in cases where disease attacks the periphery of the brain, as in arichnitis. The cases in which we observe great lesions of the brain without delirium, are generally cases of deep-seated inflammation of a local nature, or inflammation of those portions of the brain which the phrenologists consider not to be subservient to the production of mental phenomena. This fact, also, would seem to confirm the truth of the opinion of the difference in function between the medullary and cortical parts of the brain. It is supposed that the cortical part of the brain is the organ of intelligence, while the medullary portion performs a different function. It is, however, a curious fact, that in delirium the inflammation is generally confined to the surface of the brain, and that in cases of deep-seated inflammation, the most important symptoms are those which are derived from the sympathetic affections of the muscular system."

The foregoing remarks are very rational, and indicate the deep thinker, as well as the observant practitioner. When a portion of the brain, as in apoplectic effusion, tumors, or other morbid growths irritating the neighbouring

parts, becomes inflamed, we find lesions of function in the muscular system, rather than in the intellect. This is often evinced, at first, by an apparent increase of innervation in certain muscles of the body—hence, pain in some of the muscles of the extremities is often an early symptom of local encephalitis. This is a curious fact, but one which appears to be well established.

"In partial encephalitis, there is often but little, or even no pain in the head, and the only warning we have of the approach of cerebral disease is the occurrence of pain in the extremities, followed by rigidity. Here are the two most prominent symptoms of the disease, pain in the muscles of the extremities, and then rigidity. Further, we have alternate spasms and relaxations of the muscles, in which, however, the power of the flexor muscles ultimately prevails, so that, if the disease be in the fore-arm, it may become permanently flexed on the arm, and the contraction of the fingers is sometimes so great as to drive the nails into the flesh. If it affects the leg, the heel may be pressed against the buttock sometimes so forcibly as to form a sore. As the case proceeds, the limb becomes more fixed in its new position, and every attempt to extend it causes pain. During the prevalence of these symptoms, it frequently happens that the patient does not feel pain in the head, or any diminution of intellectual power. The absence of pain in the part affected may be accounted for by recollecting that it is a general law that all inflammatory affections of deep-seated parts are, to a certain extent, of a comparatively painless character, and we may account for the non-existence of any lesion of the mind, by remembering that the disease is partial, and confined to a portion of the brain which appears to have little or no connexion with the intellectual functions. In cases of this kind, when the muscles of the face are affected, the phenomena are interesting, from their being (*in the first stage*) the reverse of those of apoplexy. The face is drawn *from* the affected side, and the tongue pushed, by the opposite half of the genio-hyo-glossus muscle, *to* the affected side. This is the spastic stage, when complete disorganization has not yet occurred. But when this happens, then the phenomena of the face are like those of apoplexy, because the opposite muscles, which were in a spasmodic, are now in a paralysed state, so that the face is drawn *to* the affected side, and the tongue pushed *from* it, by the healthy action of muscles which are deprived of their antagonists."

In partial or local encephalitis, delirium may not exist, because the part inflamed may not be employed in the exercise of the mental functions—or because the corresponding part in the other hemisphere may be unaffected.

The next stage of encephalitis is that in which the structure breaks down, as it were, and softens into a kind of matter. In this stage, a train of symptoms very different from the former set obtain. The rigidity and spasm of the muscles diminish, and are succeeded by a paralytic and flaccid state—voluntary motion in one side is lost. In the first stage (irritation or inflammation), a cure may be expected:—In the second, it is impossible.

"In the partial inflammation of the substance of the brain, sensation is variously altered. In some cases motion is lost, while sensation remains intact: in others, sensation is partially or wholly abolished. In many instances the intellectual powers remain in all their integrity, or but little impaired, even after the occurrence of symptoms which mark the softening down of the substance of the brain, and its conversion into purulent matter. In a few there is, during the first stage of the disease, a slight alteration in the state of the intellect, marked by a certain degree of excitement or exaltation of the mental faculties, and this, on the supervention of the second stage, is exchanged for a stage of depression. In fact, the morbid phenomena of the mind and of the muscular system, where they co-exist, appear to be regulated by the same laws. Where the disease is extensive, you can easily observe the injury of the mental faculties which accompanies the second stage; the pa-

tient answers slowly when questioned; his memory is weak and his countenance has a stupid expression. But cases, even of extensive local suppuration, have been described by various authors, in which there was no lesion of the intellectual functions observed. These, however, generally admit of an explanation. Thus, in the cases recorded by Lallemand, the abscesses were situated in the cerebellum, pons Varolii, and other parts which are not supposed to have any connexion with the phenomena of mind. There are several well-authenticated cases of extensive disease, not only of these parts, but even of the substance of the hemispheres, occurring without any appreciable lesion of the intellect. Thus, Mr. O'Halloran gives the case of a man, who, after an injury which destroyed a large portion of the frontal bone, had extensive suppuration of the brain, and lost an enormous quantity of the substance of one of the hemispheres, and yet preserved his intellect entire up to the moment of his dissolution. There is some difficulty in explaining this. It is an opinion entertained by some physiologists, that, when one hemisphere is diseased, its functions are discharged by the other, and that the brain being a double organ, disease of one side does not impair the functions of the other. But in answer to this, it may be urged, that there are many cases on record, in which disease of *a single hemisphere* has produced great alterations of intellect. The supporters of the former opinion attempt to explain such cases in this way. They state, that in the majority of such cases there was, besides the local encephalitis, inflammation of the arachnoid membrane, and that the lesion of intellect was not so much the effect of local disease of the brain as the result of its complication with an arachnitis engaging the whole periphery of the organ. In the next place, they explain the fact of a *general* affection of the brain, arising from *local* disease, as depending in most cases on the pressure which the tumefied state of the diseased portion necessarily makes on the sound hemisphere; and they state that this pressure must be very considerable, as the brain, being confined within a bony cavity, has no power of expanding itself. Now it is a most interesting fact, in support of this view, that in a great number of the cases of loss of brain, with preservation of intellect *all through the case*, an extensive opening existed in the bones of the skull, so as to permit of expansion in the diseased hemisphere, and prevent the pressure being exercised on the opposite one. This point appears to be borne out by the result of Mr. O'Halloran's cases, and by many other examples. Lastly, in every acute case of local inflammation of the brain, two causes having a tendency to produce symptoms exist. One of these is the local disease which gives rise to those phenomena of motion and sensation which we observe on the opposite side of the body; the other is the determination of blood to *the whole brain*, the result of the irritation of that disease.—'*Ubi stimulus ibi humorum affluxus.*"

The arguments of the anti-phrenologists, founded on severe injuries of the brain, without corresponding injury to mental manifestations, are delusive. The instances in the first place, are very rare, and only prove exceptions to the general rule. We sometimes see the stomach a mass of cancer, and yet with the power of digestion. Who would argue from this that the stomach is not the organ of digestion? The liver will sometimes be burrowed with abscesses, and yet the gall-bladder will be found distended with apparently healthy bile. Would any one infer that the liver is not the secreting organ of bile? The brain is a double organ, and, though the fusion at the median line is produced by development, yet the symmetrical halves preserve, to a certain degree, their individuality.

"But besides confirming the doctrine, that the brain is the organ of thought, there are inumerable facts drawn from pathology, which have a tendency to prove that particular parts of the brain are the organs of peculiar phenomena. We see an injury of one part of the brain, accompanied by a train of symptoms indicating some pe-

culiar lesion of mind; we see an affection of another part attended by a different class of phenomena. Here pathology, the science which phrenologists reject and despise, goes to establish the ground-work of their doctrines, that the brain consists of a congeries of parts, having each a separate and distinct function. We find, for instance, that disease of one portion of the brain affects the intellect, of another, the generative organs, of a third, the muscular system. What does this prove but that the brain is not a simple organ, but composed of a congeries of parts, each of which governs a different part of the system, or ministers to a peculiar purpose. Now what is this, but what the phrenologists themselves wish to prove?

Further, the professors of phrenology have placed all their organs on the surface of the brain, and for this they have been loudly censured. Phrenology, it is urged, knows, or professes to know, nothing about the central parts of the brain, which must be equally important with the superficial, and have confined their investigations to the surface alone. Now it is a curious fact, that the pathology, which they deny, in this instance furnishes the best reply to this objection. I mentioned at my last lecture, that if we examine the symptom of delirium, we find that it characterises the inflammation of the periphery, and is commonly wanting in that of the deep-seated portions. In other words, mental alienation is the characteristic of the disease of that portion of the brain, where the phrenologists have placed the intellectual organs. Here is a strong fact in favour of the doctrines of phrenology, derived from that science, which the mere phrenologist throws overboard and despises. Again, according to the researches of some celebrated French pathologists, there are a number of facts to shew that there is a remarkable difference between the symptoms of arachnitis of the convexity and of the base of the brain. This conclusion, which after a most careful series of investigations was adopted by them, is borne out by the results of my experience, and appears to me to be established on the basis of truth. They have discovered that arachnitis of the convexity of the brain is a disease characterised by prominent and violent symptoms, early and marked delirium, intense pain, watchfulness, and irritability. We have first delirium, pain, and sleeplessness, and then coma. But in arachnitis of the base of the brain, the symptoms are of a more latent and insidious character, there is some pain, and the coma is profound, but there is often no delirium. What an important fact for the supporters of phrenology is this, and how strikingly does it prove their absurdity in rejecting the lights derived from pathology! Here we find the remarkable fact, that inflammation of the arachnoid, investing the base of the brain to which the phrenologists attach comparatively no importance, is commonly unattended with any lesion of the intellectual powers, while the same inflammation on the convexity is almost constantly accompanied by symptoms of distinct mental alienation.

It is objected to the phrenologists, that they know little or nothing of the central parts of the brain, that though these parts may be fairly considered to be of as much importance as any others, still they do not admit them to be organs of intellect. Now, what does pathology teach on this subject? It shews that we may have most extensive local disease of the central parts of the brain, that we may have inflammation, suppuration, abscess, and apoplexy, without the slightest trace of delirium. Indeed there can be no doubt that the central portions of the brain have functions very different from those on the surface. They appear more connected with another function of animal life, muscular motion and sensation. Then let us examine the phenomena of old age. Every one is familiar with the fact, that when a man arrives at an extreme age, he gnerally experiences a marked decay of intellectual power, and falls into a state of second childhood. Does pathology throw any light upon this circumstance? It does? From a series of ingenious and accurate investigations, conducted by two conti-

nental pathologists, Cauzevielh and Desmoulins, it has been found that a kind of atrophy of the brain takes place in very old persons. According to the researches of Desmoulins it appears, that in persons who have passed the age of seventy, the specific gravity of the brain becomes from a twentieth to a fifteenth less than that of the adult. It has also been proved that this atrophy of the brain is connected with old age, and not, as it might be thought, with general emaciation of the body; for in cases of chronic emaciation from disease in adults, the brain is the last part which is found to atrophy, and it has been suggested that this may explain the continuance of mental powers during the ravages of chronic disease; and also the nervous irritability of patients after acute diseases, in which emaciation has taken place.

I might bring forward many other facts to shew that phrenology is indebted to pathology for some of the strongest arguments in its favour, and I think that those phrenologists who neglect its study, or deny its applicability, are doing a serious injury to the doctrines they seek to establish. The misfortune is that very few medical men have turned their attention to the subject, and that with few exceptions, its supporters and teachers have been persons possessing scarcely any physiological, and no pathological knowledge. Phrenology will never be established as a science until it gets into the hands of scientific medical men, who, to a profound knowledge of physiology, have added all the light derived from pathological research. To give you an instance of the mode of reasoning of the non-medical phrenologists. In their drawing-room exhibitions, they appeal with triumph to the different forms of the skull in the carnivorous and graminiverous animals with respect to the development of destructiveness; and all are horrified at the bump on the tiger's skull. But, as Sir H. Davy well observes, this very protuberance is a part of the general apparatus of the jaw, which requires a more powerful insertion for its muscles in all beasts of prey. Phrenology, as generally taught, may answer well for the class of dilletantis and blue stockings, or for the purposes of humbug and flattery, but its parent was anatomy, its nurse physiology, and its perfection must be sought for in medicine. The mass of inconsequential reasoning, of special pleading, and of '*false facts*,' with which its professors had encumbered it, must be swept away, and we shall then, I have no doubt, recognise it as the greatest discovery in the science of the moral and physical nature of man that has ever been made. I feel happy, however, in thinking that of late the science has been taken up on its true grounds in Paris, London, and Dublin. Vimont's splendid work on Comparative Phrenology will form an era in the science. In London, Dr. Elliston has directed the energies of his powerful mind to the subject, and in Dublin we have a Phrenological Society, of which Dr. Marsh is the president, and my colleague, Dr. Evanson, the secretary, and under such auspices much is to be expected."

We cannot follow Dr. Stokes through his extensive lectures on the subject of encephalitis; and we have introduced these extracts and observations, chiefly on account of their bearing on phrenology. Dr S.'s lectures are calculated to repress the prurient imaginings of the phrenologists, and to lessen the inordinate scepticism of the opposers of the new science. We think, indeed, that Dr. Stokes has taken the view of phrenology which every observant physician, and acurate pathologist will come to at last.

MIDDLESEX HOSPITAL.

CASES OF POISONING BY BARYTES, AND THE MINERAL ACIDS.*

Our active contemporary, the Medical Gazette, has published three cases, related by Dr. Wilson at the last Conversazione for the present season, held at the College of Physicians. The

* Medical Gazette, July 5th, 1834.

cases in question are instances of poisoning by carbonate of barytes—by nitric, and by sulphuric acid. The first and the last were not fatal, but the second unfortunately was so.

1. *A Case of Poisoning by Carbonate of Barytes.*

A young woman who had fasted for twenty-four hours previously, and who seems to have laboured under some weighty moral depression, half filled a tea-cup with carbonate of barytes, and then filled up the cup with water. She swallowed the whole, in which she discovered no particular taste. Soon afterwards, medicine which occasioned vomiting was given to her.

"On her way to the Middlesex Hospital in the evening, two hours after the event, she found, for the first time, dimness of vision, succeeded by double vision, ringing in the ears, pain in the head, and throbbing in the temples, a sensation of distention, and weight at the epigastrium; she said she felt as if blown up with wind, and complained of palpitations.

When in bed, she first complained of pain in the legs and knees, and cramps in the calves. She vomited twice a fluid like chalk and water, which formed a deposit. Her skin was hot and dry; her face flushed; pulse 80, full and hard. Repeated doses of sulphate of magnesia were given to her.

During the night she had fifteen evacuations; had no sleep, from pain in the head and epigastrium, and ringing in the ears.

The next day she had a hot skin, with profuse perspiration, and slight pain about the pharynx. Her tongue was covered with a white fur, and moist.

A day or two after, the cramps became more severe in all the extremities with a sense of weight, and soreness when touched.

These symptoms, slightly modified, lasted a long time: those which persisted the longest, and which still exist, are severe pains in the head, pain in the left side and epigastrium, great and long-continued palpitations. There has been much difficulty in persuading her to take any sustenance."

She recovered slowly, and left the hospital in the latter end of June.

Orfila has concluded that pure barytes, or the carbonate, produces death by acting on the nervous system, and that it corrodes the parts it is brought in contact with. Mr. Brodie believes, from experiments with the hydrochlorate of barytes, that death is occasioned by its action on the brain and on the heart. In the case related by Dr. Wilson, the nervous and the circulating systems were disturbed; but the fortunate issue prevented the discovery of the actual lesions, if such there were, which the poison occasioned in the stomach.

The appropriate antidote, or rather the most useful remedy, in poisoning by barytes, is thought to be the sulphate of magnesia. This is founded on the fact, that sulphate of barytes is readily formed, and constitutes an insoluble and inactive compound.

2. *Case of Poisoning by Nitric Acid.*

This case, we perceive, is one which has been previously reported by Mr. Arnott, and was noticed in the 38th Number of this Journal. Perhaps it may be thought that the surgeon and physician have looked upon the fact through different glasses—that the medical features have arrested the attention and engaged the affections of the one, whilst the surgical beauties have subdued the imagination of the other. Yet we see so small an amount of variation in the respective descriptions of the surgeon and physician, that we willingly refer to the narration of the former.

3. *Case of Poisoning by Sulphuric Acid.*

A young woman swallowed some oil of vitriol, and immediately afterwards was constrained to take magnesia. She was then taken to the Middlesex Hospital. She laboured under a constant desire to vomit, and what she threw up was of a dark brown colour. Abbreviation of the following circumstances would be useless.

"Two hours after, her lips began to swell; the pain in the throat and stomach increased, with a violent burning sensation. She had a restless night, with frequent vomiting, and a sensation as if she were going to be choaked. Her tongue was covered with a white dense fur, with traces of dark veins, like those of the leaf of a tree; but in vomiting, something like skin was said to have been brought up; since which the tongue has been red. There were scabs forming about the lips, hands, and arms, where the acid had touched them.

During the first four days she was bled to upwards of thirty ounces, and had about 100 leeches applied to the throat; and she took magnesia and linseed-tea, &c.; after which, the abdominal pains became much less, the vomiting less frequent, and she could swallow with less difficulty. Her voice was pretty distinct, with a soft and regular pulse, and a moist and cool skin; but she had two or three shivering-fits, followed by what she called a cold pain felt about the navel.

Two days after, the cough became more troublesome, with constant irritation in the throat, which continued for some time; when, during a violent fit of vomiting and coughing, she brought up a large piece of sloughy membrane, which was found to consist of the inner coats of the œsophagus, much thickened, and very firm in texture; its length was eight or nine inches, and its width that of the œsophagus, being pervious throughout its whole extent. The inside was quite smooth, the exterior ragged; so that the entire mucous membrane, with perhaps some of the circular fibres of the muscular coat, may both be found in the ejected tube which has been preserved, and is now placed upon the table. She experienced great pain in the night after."

The patient had not quitted the hospital in the early part of July, the date of the report. She had been within the walls for six months, and was better during the two last than she had been in the first four. Yet she was rarely able to swallow any thing but fluids, and on the days when she suffered most, she vomited a pint or two of mucous liquid. She had wasted greatly, but her spirits were good.

It would be interesting to be informed of the termination of this case, which appears to have been treated with judgment and decision. The quantity of mucous membrane destroyed in the œsophagus, and, perhaps, some disorganized in the stomach, must render ultimate and perfect recovery difficult, tedious, and uncertain. Should such a recovery take place, it would be curious to observe how the stomach and œsophagus performed their functions, and to ascertain if extensive cicatrization of the latter occasioned any sensible and permanent contraction. Should the patient die, the public would be benefited by a knowledge of the facts disclosed by her dissection.

CITY OF LIMERICK INFIRMARY.

We have received from Mr. Kane, one of the surgeons of the City of Limerick Infirmary, a report of some cases that have occurred under his care in that institution. In an accompanying note, that gentleman alludes to the anxiety we have always shewn for the publication of hospital reports. We are, indeed, most desirous that clinical facts should be closely observed and extensively diffused, and we shall always continue to promote the healthy taste which their study generates. Without further preface, we shall introduce the cases transmitted to us; and we take this opportunity of stating, that we shall feel great pleasure in publishing reports from provincial institutions. All that we require is accuracy in the execution, and brevity in the details.

CASE 1.—*Severe Injury of the Ankle Joint.* Charles Haurahan, 27 years of age, a pilot, was admitted 19th March, 1834. About four hours previously, while steering a vessel past another, near one of the city quays, his right foot got entangled in a coil of rope, and was caught between the ships. On examination of the limb, the foot was

found to be twisted inwards, at a right angle with the leg; the inferior extremity of the fibula nearly protruded through the skin, and, were the man held erect, it would be found to be the part nearest to the ground—the skin in front of the joint was slightly contused. By flexing the limb, and making extension and counter-extension, reduction was effected with some difficulty. During the reduction, crepitation was very evident. The limb was placed in the usual position in the splints, with bandages, *&c.*—cold lotions ordered.

On the following day, not feeling much pain in the limb, and anxious to return home, this patient got out of bed, and attempted to walk about the ward; when obliged by the nurse to return to bed, he continued to toss the limb about on this and the following day, which brought on inflammation so violent, as to resist all attempts to subdue it, and which terminated in ulceration and sloughing of the integuments at either side, with profuse purulent discharge from the joint. Hectic symptoms soon set in—the pulse became frequent and small—he had diarrhœa and night-sweats—became much emaciated—appetite impaired, although quinine and other tonics were given. At length it was agreed, in consultation, that amputation afforded the man the only chance of saving his life; he, however, did not consent until the 8th of April, when, assisted by Surgeons Thwaites and Franklin, I removed the limb, at the usual distance from the knee—very little blood was lost; four arteries were tied. The stump was dressed on the 5th day, when it looked healthy, and apparently united, except where the ligature came out.

April 17th. The condition of the patient is much improved since the amputation—the hectic symptoms have disappeared—the centre of the wound, however, this day, shews some tendency to slough; it was accordingly dressed with powdered bark and lint. None of the ligatures have as yet come away.

April 20th. At 11 o'clock, p.m. hæmorrhage suddenly took place from the stump; and, before the tourniquet was secured, about a pint of blood was lost, which weakened and agitated the patient very much. On my arrival, I removed the dressings and slackened the tourniquet, when a smart jet of blood came, apparently, from the anterior tibial artery. I made three or four attempts to secure the bleeding artery with the tenaculum, but the soft parts giving way, I could not succeed; however, on again slackening the tourniquet, the blood nearly ceased flowing. I then placed a dossil of lint on the bleeding orifice, and filled up the wound with dry lint, and applied compresses and bandages over all.

There was no return of the hæmorrhage—the wound gradually filled up, and was cicatrized by the latter end of May.

On examining the amputated leg, it appeared that the fibula was *unbroken*—the external lateral ligaments of the ankle-joint were torn from the fibula—the malleolar process of the tibia was broken—and the internal part of the articulating surface of the astragulus was broken off, and lay loose in the joint—the synovial membrane was thickened and pulpy, and the joint was bathed in pus.

Case 2.—*Lithotomy.*

John Minahan, aged 12 years, of a pale and sickly appearance, and with a tumid abdomen, was admitted to hospital 22d April, 1834. Has had symptoms of stone in the bladder for upwards of six years, from which he suffered extremely. He was sounded on presenting himself at the hospital, and the presence of the stone ascertained.

He was ordered to be kept quiet in bed—to get half an ounce of castor oil, and flax-seed tea for drink.

April 26th. The existence of the calculus was confirmed by the sound; the boy has been kept on low diet, and repeatedly purged. In consultation, the operation of lithotomy was determined on, and the consent of the boy's parents obtained.

April 28th. A purgative having been administered at 6 o'clock this morning, and the escape of urine prevented by a ligature on the penis, the operation was

proceeded on at half past one o'clock, p. m., assisted by Surgeons Wilkinson and Franklin, and in presence of other medical gentlemen. The usual lateral operation was performed by the common scalpel alone, and the stone extracted, weighing nine drachms and one scruple (troy weight)—very little blood was lost, and the boy sent to bed. The stone consisted of the triple phosphate, at least externally—it was large in proportion to its weight, and was rough at one end, as if it adhered to the bladder. The stone was oval-shaped, nearly 1½ inch long and 1 inch in breadth. I found it necessary, during its extraction, to enlarge the wound with a bistoury, which was passed along the forceps for that purpose. 5 o'clock, p. m. some urine and clotted blood came away by the wound;—the boy does not complain of pain.

11 o'clock, p. m. There is some tenderness on pressure of the hypogastric region, for which 12 leeches were applied, and the abdomen to be fomented. Half an ounce of castor-oil to be given at 3 o'clock in the morning.

April 29th. Bowels freed by the oil—feels tolerably easy—pulse quick—tongue whitish—much thirst.

8 o'clock. Feverish symptoms, rather on the increase, and some tenderness of the hypogastric region. He was ordered leeches, warm bath, stupes, and calomel, gr. iij. Pulv. antimonial. gr. iij.

30th. Bowels have been frequently freed by the medicine, has some tenderness and fulness of the abdomen—leeches and stupes to be separated.

9½, p. m, Pulse much quickened—abdomen tender to the touch—countenance shrunk and cold—nausea and slight vomiting—hiccup occasionally, and general uneasiness. Leeches to be applied over the abdomen, a warm-bath subsequently—hot bran poultices over the abdomen, and to have the following draught in whey. ℞. *Aquæ ammoniæ acetat.* ʒss. *Vini antimonial.* gtts. x. *Tinct. opii*, gtts. xx. M.—to be repeated every third hour, omitting the opium.

May 1st. Some improvement since last report—no tenderness of abdomen—bowels have been moved—pulse not so quick, and skin of natural feel—tongue white and rather dry—slept well during the night—the warm bath to be repeated, and draughts as before.

9½ p. m. Continues easy—to get ʒss. castor oil towards morning.

May 2d. Bowels freed by the oil—tenderness of abdomen has disappeared—skin natural, pulse not so quick—the urine continues to pass through the wound of natural colour. Diaphoretic draughts to be continued, and warm bath in the evening.

May 3d. Tongue clean—no complaint or uneasiness.

9th. Urine continues to flow by the wound.

19th. The urine has for some days passed partly by the wound, but principally through the urethra. The wound is gradually healing, and the boy rapidly recovering good health. He was discharged from hospital cured, May 26th, and continues in good health.

CASE 3. *Compound Fracture of the Patella, and Wound of the Knee-joint.*

Christopher Delany, æt. 32, a fine healthy young man, was admitted into hospital on the 22d April, 1832. On the previous evening he fell from a height on a heap of stones, one of which caused a compound fracture of the patella of the right leg—the joint was penetrated.

On admission, the limb was much swelled and red about the joint, and considerable pain was inflicted on the slightest motion—a splint was placed under the ham, and simple dressing and a bandage applied, with an anodyne draught at night, composed of xxv. gtts. tinct. opii, and xxx. gtts. vini antimonialis. Bowels to be opened by ol. ricini.

The inflammation continued to increase daily, and at length extensive abscesses formed above, below, and in the joint Amputation was proposed, but not agreed to at the time. Hectic symptoms now made their appearance, and although quinine, wine, and nourishing diet were given, the man was evidently sinking. He now consented to amputation. The operation (circular incision) was performed sixteen days

after the accident, (at the patient's desire, by Surgeon Thwaites, under whose care he was admitted,)—a large abscess, which extended nearly up to the great trochanter, was cut into—the muscles were greatly wasted. The wound continued foul and sloughing up to the 5th June, 1832, when, in consequence of the hospital being given up for the use of cholera patients, Delany was transferred to the County Infirmary, where he continued to improve until, being seized with cholera, he was sent to the cholera hospital of that parish. After his recovery, he was received here again in the month of July, when the stump presented a healthy granulating surface, but quite cone-shaped, and a large ring of bone protruding. About the middle of August the ring of bone came off, and the stump healed perfectly. In a few days he was discharged cured.

Case 4. *Compound Fracture of the Patella.*

John M'Namara, 35 years of age, was admitted at 11 o'clock, p. m. April 3d, 1834. A short time before he fell from one of the city quays into a dock, the tide being out at the time. A stone or other sharp substance on which he fell caused a compound fracture of the patella of the right leg. There was considerable hæmorrhage, which subsided when the wound was dressed—and cold evaporating lotions ordered. The wound in the integuments was small and not contused.

On the following day there were considerable swelling and pain over the knee-joint, for which symptoms he was largely bled from the arm—leeches and subsequently cold lotions applied—and purgative medicine ordered.

April 5th. The inflammatory appearances have rather subsided since yesterday—leeches were re-applied, and cold lotions continued. This man being in rather comfortable circumstances, having urgent business at home, and feeling the knee nearly free from pain, insisted on his removal; accordingly, on the following day he was carefully carried to a sail-boat, which conveyed him to his house on the river-side, a few miles from the city. I have since heard from the medical attendant of the dispensary, where this man resides, that he recovered in little more than a week, under the applications of cold lotions to the joint, and aperient medicines.

Case 5. *Compound Fracture of the Leg.*

Thomas Hogan, æt. 40, admitted 2d October, 1833. About an hour before his admission he received a compound fracture of the left leg, about three inches above the ankle-joint. Both bones were broken, and to effect their reduction, the wound was enlarged with a scalpel, and a small piece of the protruded tibia sawn off by means of the chain saw. The limb was placed in splints with the eighteen-tailed bandage. The dressings were not removed until the fifth day, when the wound presented a healthy appearance, and partly united. This man was discharged from hospital perfectly cured on the 9th of November, 39 days after the accident.

Case 6. *Compound Fracture of the Leg.*

Michael Connel, a slater, aged 30 years, was admitted April 9th, 1834. Immediately before his admission he fell from a high scaffold, and got a compound fracture of the leg, about its middle. A considerable portion of the tibia protruded, to reduce which it was necessary to enlarge the wound in the skin. The limb was placed in splints, &c. and cold evaporating lotions ordered. The dressings were removed on the fourth day, and the wound found partly united. This case proceeded favourably—there was exfoliation of a small piece of the tibia—and the man was discharged cured June 2d 54 days after the accident.

Case 7. *Compound fracture of the Orbit.*

The following case affords an instance of great tenacity of life in an old person.

Joan M'Namara, 80 years of age, was admitted to hospital at 10 o'clock, p. m. January 18th, 1834. About an

hour before her admission she was looking at some persons fighting, and throwing stones at each other, one of which struck her on the upper part of the face, on the right side. The soft parts were severely lacerated, and the bones forming the outer wall and floor of the orbit were broken in several pieces. The finger could be passed as deep as the entrance of the optic nerve into the orbit, and backwards into the temporal fossa. The pupil of the right eye was much dilated, but sensible to strong light. There was considerable ecchymosis of the lids. Several pieces of broken bone were removed, and the wound lightly dressed, and wine and water ordered until the heat of the surface was restored.

Jan. 19th. She passed a restless night until 3 o'clock, a. m. when her bowels were moved, and she vomited once. Since that time she lay in a kind of drowsy slumber—pulse 70, rather hard.

Jan. 23d. In consequence of the edges of the wound shewing a tendency to gangrene, the mild antiphlogistic treatment hitherto pursued was discontinued, and bark and full diet ordered, and stimulating dressings to the wound. The wound soon put on a healthy appearance, florid granulations sprang up with healthy suppuration—small pieces of bone occasionally came away in the dressings. A tonic plan of treatment with some change occasionally, was pursued for some time—the suppuration continued healthy, and the wound looked well—she had low delirium occasionally, at length bed-sores formed—her stools began to pass involuntarily—the granulations now became glassy, and she sank exhausted on the 15th March, 57 days after the receipt of the injury.

During the progress of the case, a fracture was found in that part of the temporal bone forming the base of the skull, through which healthy suppuration flowed at each dressing—the eyeball became shrivelled—of course sight was destroyed—and granulations appeared to shoot from the sclerotic coat of the eye externally. An inquest was held on the body. I happened not to be in town on that day, and the attending surgeon did not think it necessary to open the head, otherwise I would have probably given the details of the case fully, with the result of the post-mortem examination.

RICHMOND SURGICAL HOSPITAL.

DR. O'BEIRNE ON HYDROCELE OF THE NECK.

A short notice of this affection will be found at page 513 of the present number of this Journal. A case is there related for the purpose of displaying M. Dupuytren's treatment, and his ideas upon the nature of the malady. Reference is also made to the original description of M. Maunoir, and his use and recommendation of the seton.

Dr. O'Beirne, with whose activity, zeal, and talents, our readers, we are sure, must be familiar, has enriched the pages of our contemporary of Dublin with a lengthened and practical memoir upon this disease. He enters into the history of the opinions which have been expressed, with reference to its nature and the best method of cure, and he does ample justice to the claims and the judgment of M. Maunoir.—With all this, however, we must dispense, and content ourselves with stating the facts and the opinions of Dr. O'Beirne.

We may state that the disease has been frequently confounded with ordinary bronchocele. It actually consists of several serous cysts, which, commencing, of small size, at some point of the side of the neck, gradually increase to such dimensions as to occupy the whole front, and one side of the neck, and seriously impede respiration, deglutition and speech. The tumor, when established, conveys to the touch a distinct sense of fluctuation, and contains a fluid of either a limpid, a reddish, or dark coffee colour, and coagulable by heat. In the great majority of cases, it exists independently of any enlargement of the thyroid gland; in one of Dr. Maunoir's cases it was situ-

ated behind the angle of the lower jaw, at a distance from the gland altogether. But sometimes the latter is implicated in the disease, and, in the second case related by M. Maunoir, it was enlarged and indurated, and formed one-eighth of the whole tumor.

The cyst, according to M. Maunoir, is usually thick; too much so to permit a cure by the operation of injection. Incision of the cyst, the practice recommended by Dupuytren, and extirpation of part or all of it, he equally considers as too serious and severe. In fact his practice is to evacuate by puncture the contents of the tumor, and then to pass a seton through its longest diameter. M. Maunoir himself has related four cases, which are severally quoted, though abridged by our author. Dr. O'Beirne details three, which he has personally witnessed, and to these alone we shall now direct attention.

"*Case* 1. Stephen Cassidy, aged 60, of a very wizened, weather-beaten appearance, and residing at Meath-hill, county of Meath, admitted into the Richmond Surgical Hospital, under my care, on the 25th of June, 1831. This man had a very large tumour, which occupies the whole of the front and left side of the neck. At its upper part also, it extends into the left side of the neck, and thence passes obliquely downwards to the left sterno-clavicular articulation, at which point it terminates in a rounded projection, and then sweeps upwards and along the left clavicle to within two inches of the left acromion. The whole of the tumour, particularly that part of it which covers the thyroid gland, is remarkably prominent; gives a perfectly distinct sense of fluctuation, and is quite free from any appearance or feel of pulsation. Its integuments are of a natural colour, and so thinned as to be almost diaphanous; and numerous small veins are seen ramifying beneath the distended skin; but on examining the swelling in the ordinary way, by transmitted light, it is not found to be transparent at any point. He complains of no difficulty in breathing or swallowing, or of any inconvenience whatever, excepting that arising from the great size and unsightliness of the tumour. He states that the disease commenced about twelve years ago, by a very small, moveable swelling in the centre of the triangular space above the acromial third of the left clavicle: and that this lump had gradually, and, without the least pain, increased to its present size. He is very unwilling to allow the tumour to be opened, and assigns as a reason that a medical gentlemen had cautioned him against ever permitting it to be opened, as the consequence would assuredly be instant death by hæmorrhage.

Having, with considerable difficulty, and after a delay of five days, succeeded in removing his fears on this account, I resolved, as this was the first case of the kind that I had seen, on merely making an exploratory puncture into the most depending part of the tumour, which was that corresponding to the left sterno-clavicular articulation. I proceeded thus: a transverse fold of the skin covering this part being raised, it was divided by the shoulder of a lancet; when immediately the sac, very thin, and covered with numerous small veins and arteries, protruded through the incision. The point of the lancet was then passed beyond its shoulders into the protruded sac, and a large quantity of reddish serum discharged. At first, the stream appeared so very red that, fearing it to be of pure blood, it was closely examined, and found to consist of two currents, one serous, and the other very slender, and evidently proceeding from a few small arteries on the outer surface of the sac, which had been divided by the lancet. It was observed also, that almost from the instant that this fluid began to pass off, the tumour began to pulsate, but much more strongly above the left clavicle, than at any other part. In a few minutes, the whole of the tumour was evacuated, and all unusual pulsation ceased. The thyroid gland could now be readily felt, and, after careful examination was found in a perfectly natural and healthy state. Successive layers of lint, steeped in cold water, were then laid along the whole of the

left side of the neck, and over these a wet calico roller was applied, so as to exert a moderate degree of pressure. A similar fluid continued to be secreted and discharged by the sac, the dressings became thoroughly soaked, of a reddish colour, and so tightened as to be distressing and require their removal. This discharge continued to flow for three days, wetting, each day, a considerable quantity of old linen, yet without appearing to produce the least debility. On the fourth day it ceased, the opening in the sac and that in the skin having healed; and on the following day, the tumour regained its former size and general appearance.

It was now my intention to again puncture the tumour, and to pass a seton through it; but the patient obstinately persisted in refusing to submit to the second operation, on the plea of an urgent necessity to go home. He was discharged on the 10th of July, faithfully promising, however, to return in a few weeks. Since that time, I have neither seen nor heard of him."

Case 2. The patient was a female, aged 60. The tumor had existed for thirteen years, but its growth had been rapid for the last two months. It occupied the front and nearly the whole of the left side of the neck. On its characters the full description of the other case will preclude the necessity of our saying more, than that the sense of fluctuation was distinct, but of such a nature as to convey the impression of the fluid being contained in a number of distinct cysts. The patient had been admitted into the Anglesey Hospital, under the immediate care of Mr. Hayden. The following operation was performed by that gentleman, assisted by Dr. O'Beirne.

"The skin covering the highest point of the tumour being pinched into a transverse fold, this fold was divided so as to leave a longitudinal wound about an inch long. Some scattered fibres of the platysma were next divided, until the sac came fairly into view. The sac was then freely punctured with a lancet, and a quantity of dark, coffee-coloured fluid discharged. While this fluid was escaping, a blunt probe, armed with a skein of silk, was passed into the opening, and its point made prominent at the most depending part of the tumour. Incisions were then made at this point through the skin and into the sac; the probe was withdrawn, and the silk left in the usual manner of passing a seton. The tumour being now completely emptied, the thyroid gland was carefully examined, and found quite free from enlargement, hardness, or any other morbid condition perceptible to the eye or touch. On examining the sac also, at its upper part, and separating it from the parts beneath, which was easily effected, another but much smaller cyst was clearly seen and felt at a considerable depth, and situated so directly over the carotids, that it was not considered safe to puncture it."

The subsequent events and the treatment adopted require no especial notice. The seton was withdrawn on the 25th June, after a residence of about a month. The patient was discharged cured on the 10th of July, some cervical glands being then in a condition of chronic enlargement.

The patient was again admitted into hospital, on the 17th of September following, with a small fluctuating tumor, situated about one inch above the left clavicle, and crossed obliquely, at its centre, by the external jugular vein. Mr. Hayden, assisted by Drs. O'Beirne and Ireland, operated upon it in the same way that he had upon the former, and gave exit to a comparatively small quantity of the same kind of fluid. Except slight constitutional disturbance, and accumulation at one or two points which required to be opened by a lancet, nothing remarkable occurred in the progress or treatment of the case; and the woman recovered, with merely a small indurated elevation marking the seat of the second tumor.

We need not detail the particulars of the third case. It is sufficient to observe, that the tumor was seated in the left parotid region—that it presented much the appearance of fungus hæmatodes—that it was punctured on several occasions—that at first, clear red-

dish fluid issued, and afterwards a liquid resembling coffee-grounds, and containing some hydatids—that some inflammatory action occurred in the tumor—and that, finally, the patient left the hospital of his own accord, the tumor having at that time given way, and discharging a good deal.

Dr. O'Beirne defends with cordiality and vigour, the nomenclature and the views of Dr. Maunoir. We shall content ourselves with citing the concluding observations in the essay. They refer to an improvement, suggested by the author, in the manner of introducing the seton.

"Circumstances have convinced me that the operation which I have described, may be considerably improved. In assisting Mr. Hayden, I observed that when the point of the probe was made prominent at the most depending part of the tumour, and he attempted to cut upon the end of the instrument; the integuments glided from side to side, and so effectually evaded the shoulder of the lancet, that it was necessary to make several attempts before the incision could be completed. This was evidently owing to the fluid contents escaping at the upper opening, and rendering the tumour so flaccid as to enable the integuments to glide freely over the sac. In order to obviate this defect, which causes unnecessary pain to the patient, and an awkward kind of embarrassment to the surgeon, it will only be necessary to expose the sac, previous to puncturing it, at the upper and lower extremities of the tumour, by raising and afterwards dividing a transverse fold of the integuments at each of these points. By proceeding in this way, the sac alone opposes the passage of the probe through the lower opening, and no difficulty will be found in cutting into it, so as to allow the instrument to pass, and the seton to be introduced.

After the seton has been passed, I am now disposed to alter my opinion respecting the applications of either a roller or water dressings. I believe that applying a simple dressing, or a light, warm, emollient poultice, would be better practice.

To conclude.—It is somewhat remarkable that, out of ten cases which have been related by Heister, Maunoir, Lawrence, and myself, and in which the side affected is mentioned, nine have occurred on the left side of the neck. The late M. Delpech, whose untimely and awful fate we must all deplore, does not, if Mr. Lawrence's extracts may be trusted, mention the particular side on which either of his two cases occurred. I have seen the first, but have not been able to procure the second, volume of this very distinguished French surgeon's work."

The paper requires no further comment, than the recommendation to peruse its facts, and the expression of thanks to the able author, for directing the attention of the profession, in this country, to the nature and the treatment of cysts, containing aqueous fluid, in the neck.

Meath Hospital.

Observations on the Treatment of various Diseases. By Robert J. Graves, M.D.

This is not altogether a clinical lecture, and yet it has more of that character than of any other. It is a running expression of Dr. Graves' experience, displaying the familiar ease and the ready illustration of the clinical chair. It occupies thirty pages of our contemporary, but the cream may be advantageously skimmed from that extensive surface.

The subjects on which Dr. Graves discourses are, 1, On effusion of air within the chest in inflammation of the lungs—2, Bruit de soufflet of the heart and throbbing of the chest in pneumonia—3, Symmetrical erysipelas—4, On the best method of administering calomel in acute inflammations—5, Spontaneous cure of chronic ascites—6, Diffuse inflammation terminating fatally in consequence of effusion within the chest—7, Loss of the sense of smelling—8, Carbonate of ammonia in the urine—9, On albuminous urine in dropsy—10, On diabetes insipidus.

I. *On Effusion of Air within the Chest, in Inflammation of the Lungs.*

Dr. Graves details a case of what he considers, and of what, indeed, appears to have been, simple pneumo-thorax, —that is, of pneumo-thorax unconnected with tubercles in the lungs. The particulars of the case may be briefly stated.

A gentleman, æt. 40, of robust constitution and make, caught cold, and was attacked with cough, pain in the right side, bloody expectoration, and, in short, the usual symptoms of very intense pneumonia, commencing in the inferior portion of the right lung, but advancing rapidly upwards, until the whole of that lung was engaged in the disease. As the inflammation extended, the inferior portion of the lung became engorged with blood, and totally impervious to the air, and consequently the part of the chest corresponding to it every where yielded a dull sound on percussion, while the superior part of the right side was as sonorous, when percussed, as the left or healthy side of the chest. Such was the state of things on the third day of the disease. On the morning of the fourth day, a remarkable change was found to have occurred in the course of the night; anteriorly, the dulness of the lower portion of the affected lung still continued, and, indeed, could not be greater, but from a little below the right mamma, as far up as the clavicle, which region, at the preceding visit, was naturally sonorous, the chest yielded a preternaturally clear and hollow sound. Where the sound was thus distinct, no respiratory murmur could be heard. The opposite lung presented well-marked puerile respiration, whilst the sound upon percussion was naturally clear, and, of course, less sonorous than in the upper portion of the right side.

From all these circumstances, Dr. Graves and Dr. Marsh concluded, as they necessarily must, that air was effused into the cavity of the pleura, while the lung was, in consequence, compressed. The previous health and the excellent constitution of the patient, rendered it unlikely that the pneumo-thorax was occasioned by the presence of tubercles in the lung. They were, therefore, compelled to come to the conclusion, that the air was secreted by the inflamed pleura. The progress of the case supported the opinion.

"At our next visit, in about sixteen hours after, we found the whole region, that had been preternaturally clear on percussion, now dull as possible, and presenting a very obscure respiratory murmur, mixed with some crepitus. The crepitus was evidently close to the ear, if I may use that expression, and we now felt no doubt that the air so suddenly effused, had been as suddenly absorbed, and its place occupied by the inflamed and engorged lung. In the course of four or five days, under proper treatment, this dulness began to diminish, and nearly disappeared in a few days more, during which time the respiratory murmur proportionably increased, and the gentleman afterwards rapidly recovered."

Dr. Graves remarks that this, and a case which he has previously published, are fully sufficient to establish the existence of simple pneumo-thorax. We believe that this was recognized, and received into the list of human maladies, before Dr. Graves even dreamt of looking for it. Laennec expressly declares that simple pneumo-thorax sometimes occurs; and we strangely misconceive both him and Dr. Graves, if the latter can lay claim to distinguishing or describing a new variety of the disease. We have witnessed two instances of what seemed this affection. One case was remarkable. A schoolmaster, after exposure to cold, was attacked with all the symptoms of acute inflammation of the left lung and pleura. After a time, the side became prominent, was unnaturally resonant upon percussion, and the respiratory murmur could scarcely be discerned. What little there was seemed distant, and was bronchial. Under the treatment adopted, the resonance slowly diminished, and respiration as slowly returned. The patient ultimately recovered, and is now in the enjoyment of good health. We supposed, and still suppose, that this was an example of pneumo-thorax, unconnected with tu-

bercles and vomicæ. Dissection has not verified conjecture in any of these instances.

II. *Bruit de Soufflet in the Heart and Throbbing of the Chest in Pneumonia.*

"Another phenomena (says Dr. Graves) observed in the progress of the foregoing case, strongly attracted the attention of Dr. Marsh and myself, bruit de soufflet, of the most distinct and loudest sort, audible not merely in the region of the heart, but over the entire front of the chest. This *bruit did not exist in the subclavian or carotid arteries;* Dr. Marsh, who watched the case with the utmost care, is quite certain that no such sound accompanied the action of the heart in the commencement of the pneumonia; it was not until considerable dulness and disappearance of respiratory murmur over the lower portion of the lung had taken place, that the bruit de soufflet began, increasing in intensity as the inflammation of the right lung spread upwards. This new symptom caused us much uneasiness, and naturally induced the fear that the inflammatory action was not confined to the right lung, but had extended to the heart and great vessels, an occurrence that would have rendered the case almost hopeless. Our fears made us attend to this symptom with the greatest anxiety. For several days it continued without the slightest abatement, but at the period when the stethoscope and general symptoms indicated a notable diminution of the inflammation, then the bruit de soufflet began to diminish in loudness and intensity, and in the course of four days altogether disappeared."

The fact is worth recording; the explanation is uncertain. Throbbing of the chest was another feature of the case in question. It was as strong at the right mamma, and even far above it, as it was directly over the heart itself. Dr. Graves' suppositions on the mode of its production are long, and may be just. The following statements are less liable to doubt. In a case of pneumonia attended by Mr. M. Collis, and himself, the action of the heart was very powerful, and a distinct pulsation, corresponding to each ventricular stroke, was perceptible in all the veins of the back of the hand. In a lady, who was attacked with acute peritonitis, venous pulsation was evident to Dr. Ireland, Mr. Crampton, and Dr. Graves.

III. *Symmetrical Erysipelas.*

Dr. Graves relates an instance of erratic cutaneous erysipelas, which travelled at an equal pace, and in a manner exactly similar, upon either side of the median line. The fact is curious, and that is all that can be fairly said of it. We have seen abundance of erysipelas, but we never witnessed an instance of this sort. The practitioner may consume the greater part of his life before he enjoys an opportunity of seeing it; and when that opportunity arrives, it amounts to nothing more than the tickling of sorry curiosity. Two wood-cuts are expended upon it by our author.

Le jeu ne vaut pas la chandelle.

IV. *On the best Mode of administering Calomel in Acute Inflammation.*

Dr. Graves makes some bold and excellent remarks on the exhibition of mercury, in cases of acute inflammation of important organs. He refers, in a highly complimentary manner, to the practice recommended and adopted by the senior Editor of this Journal. Of that practice he approves, and his own would appear to have been founded on it. The practice may be briefly stated.

The patient must take no cold fluids; whatever he drinks must be moderately warm; barley water, without lemon juice, should be preferred; and he should not consume more than three pints of drink in the twenty-four hours, as too much drink disturbs the stomach and bowels, and favours mercurial diarrhœa. Grapes and all fruit must be withheld, a precaution too often entirely neglected, much to the injury of the patient. With these precautions, Dr. G. gives calomel in scruple doses, one daily being usually sufficient, but imminent danger sometimes demanding a second dose, after the expiration of

twelve hours. The supplementary remarks, the cautions, and advice of Dr. Graves are judicious.

V. *Spontaneous cure of Chronic Ascites.*

A lady had for *thirteen* years been suffering from a gradual accumulation of fluid in the abdomen. This greatly exceeded in dimensions that of a woman in the ninth month of pregnancy. Yet her health was good, and no operation was attempted. About six months ago, the complaint having been stationary for the previous year, the catamenia, which had constantly been scanty, suddenly became frequent and profuse—a copious discharge of urine succeeded—in less than a week night sweats were established—and, in about a fortnight from the commencement of the diuresis, no vestige of ascites was perceptible. The lady went again into society, slim and attenuated as a purged leech.

VI. *Diffuse Inflammation fatal from Effusion into the Chest.*

There is much to be said, and something to be unwritten on the subject of diffuse inflammation. The paper of Dr. Duncan is confused and unsatisfactory, and much of the error and obscurity that may be found in it are owing to the imperfect information of that day, with respect to the secondary inflammations and deposites. We entertain but a mean opinion of the essay of Mr. Lawrence, on Erysipelas Phlegmonodes. It is neither particular nor comprehensive, and it wears the livery of the rhetorician and the advocate, rather than that of the philosophical searcher after truth.

The cases before us, two in number, are not deficient in practical interest, yet we cannot afford to copy their details. The following are the more important circumstances.

Case 1. The patient, a male, aged 22, was admitted into the Meath Hospital, Nov. 11, 1833, with fever of a typhous character, and symptoms chiefly referable to the head. The symptoms had existed for five days. On the seventh day after the commencement of his illness, he was attacked with epistaxis, and much night delirium. On the eleventh day, he became deaf. After this he improved, but trifling bronchitis was established. On the 21st day he was seized with rigors, succeeded by fever, sore throat and dyspnœa. On the next day the latter symptom had increased, and respiration was attended with a croup-like noise; a good deal of swelling existed on the external part of the throat beneath the lower jaw, which parts were scarcely red, but extremely tender to the touch. The same sort of œdema existed internally, occupying the velum, uvula, and tonsils, so as nearly to close the aperture of the fauces. The mucous membrane lining these parts had a transparent appearance, and was but little, if at all, redder than natural. Slight dulness existed in the postero-inferior portions of both lungs, and moist bronchitic râles were distinguished. On the next day all the symptoms seemed relieved. On the next the respiration was more difficult and hurried. On the following day he died.

Dissection. The muscles of the neck were pale and soft, and the cellular tissue infiltrated with a yellow sero-gelatinous fluid. The sternum and cartilages of the ribs being raised, the cellular tissue between the anterior mediastinum and the sternum presented the same appearance as that in the neck. Effusion into both cavities of the chest, amounting to two quarts of a sero-sanguinolent fluid, in which floated flocculi of lymph. Lymph deposited on the surface of both lungs; but most evident over the interlobular cellular tissue: it was soft, and only occurred in patches. Cellular tissue of pericardium infiltrated with the same jelly-like substance as noticed on anterior mediastinum. Heart firm and contracted, the pericardium full of turbid serum, containing flocculi of lymph, and at the base of the right ventricle *an ecchymosed spot about the size of a shilling.* The substance of the lungs was crepitant, and no spots of induration could be detected.

On opening the larynx, the chordæ

vocales were found slightly thickened, but otherwise healthy, as were also the parts about the pharynx.

Case 2. A female, æt. 50, admitted into the Meath Hospital. She had suffered from pain in the right side for nine days, and for three or four from a painful swelling of the upper part of the same side of the chest and neck; the swelling was diffuse, colourless, and extremely tender, and pitted slightly upon pressure. The respiration was hurried; the lips were rather livid. There was slight delirium. Dyspnœa increased, and two days after her admission she died.

Dissection. Infiltration of serum and lymph in the cellular tissue of the neck and thorax—whiteness and softening of the pectoral and sternal muscles—cellular membrane of the anterior mediastinum infiltrated with serum and much lymph—bloody fluid in the pleural cavities, and petechial spots on the serous membrane of the lungs and heart—and softening of the latter were the principal morbid alterations discovered.

The low character of the cellular inflammation in the preceding cases—the late period of its occurrence—and the complication of low inflammation of the pleura and the pericardium are characters worthy of attention. The fact is, that diffuse cellular inflammation, in whatever part of the body it is situated, frequently induces, or at all events is attended with, pleuro-pneumonia or pericarditis. We might almost affirm, that we have witnessed innumerable instances of this description; we have certainly seen many. But we cannot enter on this wide, and, to us, seductive subject. We shall probably revert to it fully at a future time.

VII. *Loss of the Sense of Smelling.*

"I had lately an opportunity of observing a very singular case of the total loss of the sense of smelling, occasioned by exposure to the effects of a very strong and disagreeable odour. Mr. ——, formerly a captain in a yeomanry corps, was attended by Mr. Barker of Britain-street and myself. He was affected with ascites, and in the course of conversation one day, mentioned that in the Irish rebellion of 1798, information was received by the magistrates, that five hundred pikes were concealed in one of the markets of this city, buried at the bottom of a large cess-pool, which was filled with the offscourings of the market and all manner of filth. He proceeded to the place, and superintended the work of emptying out the cesspool, at the bottom of which the concealed arms were found as specified. During this operation he was exposed to most abominable effluvia, and suffered greatly at the time from the stench. Next day he found that he had become entirely insensible to odours, and since that, now a period of thirty-six years, he has remained completely deprived of the sense of smelling. From this, it appears, that as exposure to very intense light may produce amaurosis, so exposure to intense odours may produce a corresponding affection of the olfactory nerve."

VIII. *Carbonate of Ammonia in the Urine.*

Dr. Graves had noticed the existence of this salt in a former case, which he published several years ago. The patient, in the present instance, was an athletic man, who, after imprudent exposure to cold, was attacked with anasarca, ascites, and intestinal tympanitis. There were pain and tenderness in the belly, and antiphlogistic treatment was necessary. The urine was now found to contain the carbonate of ammonia in some quantity.

"It was of rather a pale straw colour, contained no albumen, and acted on the vegetable colours as an alkali. It deposited a precipitate consisting of the ammoniaco-magnesian phosphate and phosphate of lime. This remarkable urine was supposed by some who witnessed the violence of its effervescence on the addition of an acid, to owe the formation of its ammoniacal salt to decomposition during its retention in the bladder. But that this was not the source of the carbonate of ammonia, was proved by many circumstances,

It was perfectly limpid when voided, and had not the slightest smell of putrescence, such as exhales from urine even in the commencement of decomposition. Again, when our patient completely emptied the bladder of its contents, and in half an hour afterwards again passed a small quantity of water, this latter was found as copiously loaded with carbonate of ammonia as the former. It necessarily follows, therefore, that the urine, as secreted by the kidneys, contained the carbonate of ammonia which seemed to be a vehicle for excreting those elements which are usually combined so as to form urea, *for in this man's urine, not a trace of urea could be discovered.*

The occasional presence of ammonia in the urine, in the form of the ammoniaco-magnesian phosphate, has been long known to chemists; carbonic acid is of much rarer occurrence indeed, for not more than one or two cases have, I believe, been observed, in which carbonate of lime has been found forming a urinary calculus in the human bladder, although so common in swine and other animals."

The patient died. On examining his body, the kidneys were discovered to be rather enlarged, and somewhat turgid with blood. The bladder was perfectly healthy. The liver was misshapen, round at the edges, smaller than natural, indurated, and composed throughout its whole mass of globular masses, very firm and pale, forming a variety of what is called scirrhous liver.

IX. *Albuminous Urine in Dropsy.*

Dr. Graves is one of those who cannot admit that the presence of albuminous urine in dropsy is conclusive evidence of the existence of structural change in the kidneys. He has seen so many instances of the disappearance of this symptom under proper treatment, that he feels compelled to come to the conclusion, that it may be, and frequently is, produced by functional derangement only of the secreting organ.

We cordially agree with Dr. Graves. Albuminous urine is not unfrequent in cases of disease of the urinary organs, and indeed under circumstances where no disease of those organs can be apprehended. A patient had caries of the tarsal bones, and ulceration of the soft parts of the foot. One day we were tempted, from mere curiosity, to examine the condition of his urine. It was loaded to excess with albumen. The patient was rather broken down in health, but laboured under no apparent affection of the urinary organs. The albuminous condition of the urine continued for some time and gradually disappeared. Another individual had popliteal aneurism, for which the femoral artery was tied. The wound was slow in healing. He was attacked with symptoms indicating the descent of a calculus from the kidney to the bladder. The urine became albuminous. The calculus was voided by the urethra, and proved to be composed of phosphate of lime. In the course of a short time the patient died from an accidental attack of erysipelas. On examining the body, the kidneys, the bladder, and the prostate appeared to be perfectly healthy.

To return to Dr. Graves, he believes, with Frank, that some cases of dropsy may be analogous to diabetes.

"An attentive observation of the different forms under which dropsy presents itself, led me to the following conclusions. When dropsy comes on gradually, is chronic, and unattended by any evidence of being caused by inflammation either of the chest or belly, and where we cannot detect the existence of organic disease either in the thoracic or abdominal cavity, then there is some reason to suspect that the dropsy may be analogous to diabetes. If, in addition to these characters, the urine is found either more copious, or as copious as natural, and especially if it is found to be albuminous, then our suspicions are strengthened, and we are justified in trying the peculiar method of treatment which this variety of dropsy demands, and which consists not in bleeding or leeching, not in purging or exhibiting diuretics, not in mercurializing the system, but in the use of opium and animal food in moderate quantity. Of the success of this

treatment in such cases, (but in such only,) we have had several striking instances in the Meath Hospital."

A case is related in illustration, but it does not demand particular notice.

X. *Diabetes Insipidus.*

Our author details two cases of this affection, as contributions towards its history and treatment. Yet those cases are unsatisfactory, for the patients left the hospital too soon to decide the permanency, or otherwise, of their recovery. A remark of Dr. Graves is deserving of attention.

"Although the urine differed so considerably in specific gravity and chemical composition from that of saccharine diabetes, yet did its qualities and quantity become natural, and the general health improve under the use of the remedies found most beneficial in diabetes mellitus, so that whatever distinction may be made between these affections, according to the nature of the urine, they seem nearly identical as to the constitutional symptoms accompanying them, and the mode of treatment to be employed, if I may judge from the three cases referred to."

Dr. Graves observes, with reference to diabetes mellitus, that although an arid state of the skin is generally present, a tendency to perspirations is sometimes displayed. In the case of a gentleman, in whom the disease had existed for a year, and in whom the daily amount of urine was about six pints, of the sp. gr. 1051, and highly loaded with saccharine matter, exhausting night perspirations were complained of. Dr. Graves saw a similar case, in 1820, under the care of the late Dr. Duncan.

Here we close this notice of a lengthened, yet as valuable as lengthened, article. We have taken many opportunities of noticing in terms of high, and of merited commendation, our contemporary of Dublin. It continues to do credit to its immediate conductors, and to those whose contributions occupy and adorn it. We trust that the *principles* of the profession in Ireland will continue to support the only medical periodical of which Ireland can boast. These are times for all to be up and stirring, and we trust that the activity of Irishmen will not continue to be chiefly shewn in religious animosities and the use of the shilelah.

Manchester Royal Infirmary.

Clinical Lectures. By Dr. Carbutt.*

We have said so much, and discoursed so often on the benefits to be derived from the publication of hospital reports, as well as from the systematic delivery of clinical lectures, that we will not sing again that cuckoo-note. Yet we think we may fairly lay claim to the merit, of having aroused the medical officers of hospitals and infirmaries to consult their own interests and those of science, by diffusing a knowledge of the varied and important facts which present themselves to notice in public institutions. We have doubted, and we still doubt, whether separate and bulky volumes constitute the best mode of publishing clinical lectures and reports. We are sure it is expensive; we believe it is, therefore, inefficient. Many a hospital surgeon or physician is wisely deterred by prudential considerations from the venture—and the work when published is seldom purchased. A well-arranged system of quarterly reports in the pages of a periodical would probably be the only plan likely to enjoy stability or attain success.

We shall liberally draw from Dr. Carbutt's work on various future occasions. On the present, we shall offer a brief sketch of its nature—and direct a hasty glance at its object.

The diseases which occupy the attention of Dr. Carbutt are Gastro-enteritis — peritonitis — jaundice — bronchitis—phthisis—pleurisy—scarlet fever—ague—rheumatism—amenorrhœa

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* Clinical Lectures in the Manchester Royal Infirmary. By E. Carbutt, M. D. Octavo, pp. 407. London, 1834.

—feigned disease—chorea—painter's colic—secondary syphilis—dropsy—and diabetes. Some of these affections are honoured with a greater, some with a smaller degree of consideration. The details of one hundred cases are presented, and they occupy the principal portion of the volume. The observations are generally brief, and such as naturally spring from the facts.

The object of the work may be learnt from some remarks contained in a short introduction to the cases. Before we advert more particularly to it, we must seize the opportunity of quoting one passage, intended to urge the medical practitioner to recollect that he is, and must ever continue, a student.

"The progress of science," says Dr. Carbutt, "is so rapid, that if you once consent to give up study, and to satisfy yourselves with the knowledge acquired up to any particular period, you will remain like a ship at anchor when the tide is driving fast, and will have the mortification of seeing every little boat shooting a-head of you, and leaving you further and further behind."

The remark may be trite, yet its truth is such that it cannot be too forcibly impressed on the profession. Examples of such stationary gentlemen as Dr. Carbutt has depicted are too frequent, even in the highest places. The veteran apothecary and the old physician are too often specimens of antiquated ignorance, and respectable imbecility. Disdaining the new-fangled notions of pathology, they hug the good old precepts, and prescribe the good old remedies; and if haply some opinionated "nervous fever" *will* have its way in spite of even the best-concocted juleps, why the patient dies as others died before him, according to the rules and the practices of art. By the way, the nautical metaphor of Dr. Carbutt is not altogether unexceptionable. Had Manchester been near the sea, Dr. Carbutt would probably have found that ships at anchor, "when the tide is driving fast," seldom experience much mortification from seeing little boats shoot *a-head* of them. The tide is usually observed to run in the opposite direction, and little boats, as well as big ones, are commonly very glad to swim with it.

But we wished to exhibit the object of this volume. It is this.

"Clinical lectures, I have said, give you an opportunity of seeing and studying cases, so as to render you in some degree familiar with diseases and treatment. And yet I feel it to be my duty to caution you against becoming what may be called case-practitioners. You must practise from principles and not from cases."

And further on Dr. Carbutt proceeds:—

"Now, I would recommend you to study as many cases as you can, but solely with a view to enable you to form, correct, or strengthen your principles of practice. If you see that either sensibility or the power of muscular motion is lost, you may be assured that the nervous system, in some of its parts, either of the brain, the spinal cord, the ganglions, or the nervous filaments are, or have been, oppressed in some manner, or otherwise injured. You must endeavour to discover the cause of this, and then to remove it. Of the means of accomplishing these objects, we shall afterwards have occasion to speak.

Again, from the cases you have witnessed or will witness, you may form this conclusion, that the most likely mode of lessening entonic inflammation in any part of the body, is to lower the action of the heart both in force and frequency; and that the way to do this is to abstract blood from the circulating system. You will, therefore, bleed in acute rheumatism, in inflammation of the brain, of the ear, of the throat, of the larynx and windpipe, of the lungs and the pleura, which last inflammation is called pleurisy, in inflammation of the heart, in peritonitis, in inflammation of the stomach, of the intestines, of the liver, of the spleen, of the kidneys, of the bladder, and in various other inflammations; that is to say, if all the inflammations which I have enumerated, and also those which I have not enumerated, be acute or entonic.

In like manner you will lay it down as a principle that the same abstraction

of blood, for the same reason, is the best method of arresting entonic hemorrhage; that is, the vigorous and spontaneous effusion of blood from any of the outlets of the body. You will, therefore, draw blood in entonic bleeding at the nose, entonic spitting of blood, entonic vomiting of blood, entonic bloody urine, entonic uterine hemorrhage, entonic anal hemorrhage.

So, you will find, that in entonic inflammation, and in entonic hemorrhage, except perhaps, that those affections be seated in the inner or mucous membrane of the alimentary canal, an excellent assistant to the abstraction of blood is the administration of purgatives. You will therefore give purgatives proportioned to the age and strength of your patients. In inflammation or hemorrhage of the mucous membrane of the aliamentary canal, you must abstain from violent purgatives, for reasons which I shall have frequent opportunities of explaining.

You will also soon discover the principles that the administration of mercury so as slightly to affect the mouth is an almost certain method of overcoming inflammation in all the membranes or textures; except, perhaps, the mucous membranes, for I am not quite certain about them. You will, therefore, administer mercury, in an appropriate manner, in all inflammations of serous membranes, of cellular texture, of muscular texture, of tendinous, and ligamentous texture, of nervous texture, of dermatic texture or skin, and of cartilaginous texture.—That mercury has the same power in inflammations of mucous membranes has been asserted. I do not mean to deny it; but I have some doubts."

It appears to us that the preceding doctrines concerning principles is not so clear as Dr. Carbutt seems to think. We will not turn his position by a joke, nor do we intend to lay stress on the case of the philosophical tailors of Laputa, who, cutting their coats upon abstract principles, were the very worst *fitters* that Gulliver had seen.

But what are principles in medical science? Are they truths derived from some genuine revelation—or abstract expressions, the product of some unerring mental operations? Perhaps a slight analysis of the principles directly stated by our author, may assist us in determining their nature. It is a principle, then, according to the Doctor, that "mercury administered so as slightly to affect the mouth, is an almost certain method of overcoming inflammation in all the membranes or textures, excepting, perhaps, the mucous membranes." Following out this principle, Dr. Carbutt tells his pupils to administer mercury, in an appropriate manner, in all inflammations of cellular texture—of dermatic texture (that is, skin)—and of cartilaginous texture.

A little consideration will render it apparent, that "principle," in these instances, means nothing more than the expression of the fact; that fact could only be determined by experiments; and those experiments were surely cases. Supposing the principle, then to be correct, it resolves itself into a simple expression, an algebraic exponent, of many individual cases.

We contend that this erection of "principles" into rules and guides of conduct is pernicious to the understanding of the pupil. It is a seemingly short cut to truth, which frequently leads into a bog. It resembles the adoption of saints and martyrs, as intercessors in the Catholic faith; those saints and martyrs at length usurped the honours of the Deity. We profess ourselves Iconoclasts, and would shiver these symbols of idolatrous adorers.

To revert more closely to the question. We repeat, that a "principle," in physic, implies nothing more than the constant occurrence of a fact—that it must have been established, and can only be maintained, by the actual observation of cases—that the process by which itself was deduced can never be injurious to the minds of students; for, if the principle is strictly accurate, the student should still examine for himself, and learn to test its accuracy by personal investigation. This is the true spirit of induction, the highest exercise and noblest privilege of reason. To erect even truths of demonstration into

laws which should not be questioned, and need not be examined, would be to erect a debasing despotism in the intellectual world. What would be thought of the geometrician, who asserted that the sides of an equilateral triangle were equal to each other, yet objected to the careful examination of the problem! The case is analagous to that of the lecturer, who affirms certain laws, which can only be proved or rebutted by the careful observation of cases, yet requires that the pupil should study cases with the conviction, à priori, that those laws are true.

We have put the case in a favourable manner, by supposing that the "principles" are actually true. But if they should be doubtful, or absolutely false, we need scarcely say that the mischief would be seriously aggravated. We have no hesitation in affirming, that some of the principles of Dr. Carbutt *are* of dubious character. He asserts, for instance, that the use of mercury, so as slightly to affect the mouth, "is an almost certain method of overcoming inflammation in all the membranes or textures, except, perhaps, the mucous membranes." And, acting on the principle thus laid down, Dr. Carbutt as we said before, decidedly tells his pupils to exhibit mercury, in all inflammations of cellular, dermatic, and cartilaginous texture. Erysipelas is inflammation of the skin, and diffuse cellular inflammation is seated, of course, in the cellular texture. We have no hesitation whatever in asserting, that mercury, administered so as slightly to affect the mouth, is always unnecessary, and frequently injurious, in the first affection—and that no good surgeon would, in the great majority of cases, consider it prudent to resort to it in the second. Here, then, is a wide separation of opinions, on what is held up to inexperienced pupils as a fundamental principle.

Our own advice to pupils is this. Be led till you are able to run alone—but not one moment longer. Look on all laws and all principle (we allude to medicine) with considerate distrust —recollect that these are drawn from the observations of others, that Nature is before you, and that you have as good a right to observe as they. We give not this advice to encourage arrogance, but to promote induction. Without that, there is no sound and stable philosophy—no laws that can claim obedience—no generalizations that are safe or certain.

Dr. Carbutt alludes, with a feeling of contempt, to what may be called the mere "case-practitioner." We have seen that he contrasts with this plodding hack his thorough-bred, principle-fed racer. The former is, indeed, a sluggish beast, but the latter is gingered, and got up for show.

The fact is, that the very best men in our profession are what Dr. Carbutt calls "case-practitioners." But case practitioners are not all alike. Some men witness cases—some observe them. The former constitute the mere routinists, men who do not rise above the comprehension and the treatment of symptoms; such are Dr. Carbutt's case-practitioners. The other class to which we have alluded watch the phenomena which cases present—they analyse, combine, compare—and the results are generalizations, or, as Dr. Carbutt terms them, principles, which serve to facilitate the comprehension, and assist the management, of the cases that shall follow. This, however, is a different thing from setting out with laws and principles ready-made, and calculated to control rather than to help.

In succeeding Numbers, we shall analyse or notice, as circumstances may require, the cases and the observations contained in the volume. In the interim, we recommend our brethren to peruse it.

MISCELLANIES.

THE NORTH-WEST LONDON SELF-SUPPORTING DISPENSARY.

We are not exactly of the Chancellor's school, nor do we think it absolutely indispensable that a man should break his ribs, his head, or his skull, in order to be qualified to receive gratuitous medical assistance. No doubt, the knowledge that a pauper fund exists is injurious, in some measure, medically as politically. But the balance of good is vastly in its favour; and medical charity, on an extensive scale, is probably attended with a smaller amount of ultimate mischief, than any other form of this offspring of humanity and kindliness. There is one consideration in favour of these charities, which appears to have been totally lost sight of—their importance as a means of medical education. Were the Chancellor seriously to attempt to put down all medical charities, save and excepting hospitals for accidents, we should like to know how, where, and when the professional youth should receive their education? The Malthusians, we ween, would look exceeding blue, did they find that themselves and their families were deprived of decent professional assistance—that their wives must be consigned to the science of midwives—and their own inflammations, and choleras, and fevers, be entrusted to the hands of a set of empirics. Then the titled railers at a charity fund would import their physicians from some foreign land, where ignorance of the true principles of political economy perpetuated hospitals, and maintained institutions for the halt and blind. Yet we need not throw away words on the affair, for the whole is an idle, shapeless dream, incapable of form, and impossible of occurrence.*

Whilst we laugh at the idea of abolishing hospitals, we feel that it is politic and in every way desirable, to prevent the lower classes from leaning too much on the certainty of gratuitous advice. The penny earnings squandered in the destruction of life by gin, might be usefully and honorably appropriated to securing the means of restoring health, or alleviating suffering, at a future day. That which philanthropy might wish, active benevolence, it would seem, has effected. In many country districts, self-supporting dispensaries have been founded, and are flourishing. The labourer and the mechanic have been taught to believe, and have discovered by experience, that a very few pence, judiciously applied, will preserve their independence, maintain their health, and draw the bold line between honourable self-respect, and the cringing, spurned, and wretched degradation of the pauper. Oh! it was a noble wish, to plant and to foster the seed of forethought in the bosom of the poor man, and well may it succeed.

The North-west London Self-supporting Dispensary is the offspring of those which have preceded it in the provinces. It is patronized by the noble and the wealthy, the Bishop of London being its president, and a long array of lords and gentlemen lending it their countenance and name. Its medical officers are of high respectability, and nothing wearing even the faintest colour of a job sticks any where about it.* The experiment of establishing a self-supporting dispensary in London is fairly made, and will be fully tried. We will glance at some of the

* Some of our contemporaries, not content with the medical portion of the question, have taken into consideration the Poor-law Bill. The passions and the politics of the newspaper have invaded the pages which should be exclusively devoted to science. The thing may be harmless—it is certainly absurd.

* Amongst the medical officers are Dr. Copland—Dr. C. B. Williams, the author of some excellent observations upon auscultation—Mr. Copland Hutchison—and Mr. Cæsar Hawkins.

more prominent features of the institution.

The following outline of the plan is presented in a circular, printed by the managing committee.

The Institution is supported by two distinct funds—the *Honorary* and the *Ordinary* Fund.

The Honorary Fund is derived from the subscriptions and donations of the benevolent, and is applied to defray the expenses of the Establishment, and the dispenser's salary.

The Ordinary Fund consists of the small periodical payments of the poor subscribers (one penny a week for each adult, and one halfpenny for each child, or one penny for all the children of a family, where there are more than two,) and is devoted to the purchase of drugs, and the remuneration of the ordinary medical attendants.

Before persons can be admitted to the benefits of the Institution as ordinary subscribers, their circumstances are investigated by the Secretary and a Sub-committee, to ascertain that they really belong to that class for which the Institution is formed. The proceedings of the Sub-committee, as well as the general business of the Institution, are under the direction of the Committee. The power of controlling the Committee, of altering or making laws, and of electing or removing officers, is vested in the Governors (donors of ten guineas, or Annual Subscribers of one guinea,) who meet once a year, or oftener, as circumstances may require.

Four medical officers in ordinary, who are general practitioners, attend in turn daily at the Dispensary, and visit, at their own homes, those of the ordinary subscribers who are too ill to come out. There are, besides, five consulting medical officers, physicians and surgeons, who give their services gratuitously, in cases of difficulty or danger.

This plan is adopted, with some modifications, from that of the Coventry Self-supporting Dispensary; and, as a proof of the practical success of that Establishment, it may be stated, that during the last year, which was its third, 1668 patients had been attended, and the free members' or ordinary fund amounted to £400. 12s. of which £112. 12s. were paid for drugs, and the remainder divided among the medical attendants.

We shall select such of the rules affecting ordinary subscribers, the class to be relieved, as develope the more important parts of the constitution of this self-supporting dispensary.

"I. The Ordinary Subscribers shall consist of small tradesmen, working persons, individuals of small income, and servants, their wives and children, not receiving parish relief, and who are unable to pay for medical advice in the usual manner, residing within the following limits:—The New Road, Oxford Street, the Edgeware Road, Portland Place, and Regent Street.

II. Any such person wishing to become an Ordinary Subscriber, must apply to the Secretary, who shall enter the name, age, residence, and occupation; the application will then be taken into consideration by the Sub-committee, and if found eligible, the applicant will be admitted, and receive a ticket on paying one month's subscription.

III. Every Ordinary Subscriber above fourteen years of age shall pay one penny, and under that age one halfpenny a week, except in a family with more than two children, when one penny a week shall be considered sufficient for all under fourteen years of age. Female servants shall pay five shillings a year, and male servants seven shillings, in not less than half-yearly payments.

IV. The payments of the Ordinary Subscribers shall be made at the Dispensary in advance, weekly or for any longer period. No one will be entitled to the benefits of the Institution if in arrear: and each family shall pay a fine of one penny for the arrear of every week. If any Ordinary Subscriber shall be more than four weeks in arrear, his or her name shall be erased from the books.

V. No one actually labouring under sickness can be admitted an Ordinary Subscriber, unless two healthy persons above fourteen years of age enter at the same time and each pay the whole

year's subscription in advance. Any such person unable to procure two others to enter with him, shall, by paying ten shillings, be entitled to the privileges of an Ordinary Subscriber for three months; and may afterwards continue to be entitled to the benefits of the Institution by paying the usual rate of subscription."

Each patient may choose his or her medical attendant in the first instance; but he must not subsequently revoke his choice.

Any married Ordinary Subscriber being pregnant, may have the attendance of whichever Medical Officer in ordinary she may prefer, on depositing at the Dispensary half a guinea, either at once or by instalments, one month before her expected confinement.

Those who are sufficiently well, attend at stated hours at the dispensary —while those whose illness is too severe to permit such attendance, are visited at their own homes by the medical officers.

There is only one danger to be apprehended in the practical operation of these establishments. We all know the cruel indifference and neglect displayed by the subalterns, at hospitals and dispensaries, to the unhappy patients. Compelled to waste hour after hour in waiting to be seen, or in expecting their medicines, the industrious poor are heartlessly robbed of their time, their best possession, while their spirits are broken, and their maladies are aggravated, by exposure in cold and comfortless lobbies. Expostulation brings insult, and insult begets despair, till, too frequently, the patient is urged to discontinue the painful and perhaps injurious attendance—to turn with disgust from the cruel dole of insolent charity—and to submit, without a further struggle, to his fate. This is no exaggerated picture of the miserable hanger-on at a dispensary; and often have we heard a sickly mother bitterly complain, that her child and herself must perish unassisted, rather than suffer the intolerable delays and the hard-hearted arrogance of dispensary Dogberries. We fear that the small sums subscribed by the patients, in these new institutions, may tempt their menials to treat them as paupers are too often treated. The committee should keep a watchful eye on this, for slight as seems the evil, it cuts keen.

LAST CURRICULUM OF THE COLLEGE OF SURGEONS.

We really cannot say whether this curriculum, promulgated in July of the present year, is merely a reiteration of former rules and regulations, or a genuine addition to the family of the college. Curricula have lately been so plenty, that we feel as much difficulty in distinguishing their features, names, and ages, as if we were placed amongst a series of twins. Whether the present be new or old, it is undoubtedly the last, and will constitute the law, we presume, for a season. There is tacked to it a recommendation which may merit a remark.

Regulations of the Council respecting the Professional Education of Candidates for the Diploma.

I. Candidates will be required to bring proof:—

1. Of being twenty-two years of age.

2. Of having been engaged five years in the acquirement of professional knowledge.

3. Of having studied Anatomy and Physiology, by attendance on Lectures and Demonstrations, and by Dissections, during two anatomical sessions.

4. Of having attended at least two courses of Lectures on Surgery, delivered in two distinct periods or seasons, each course to comprise not less than sixty Lectures.

5. Of having attended lectures on the Practice of Physic, on Chemistry and on Midwifery, during six months; comprising not less than sixty Lectures respectively, and on Botany and Materia Medica during three months.

6. Of having attended, during twelve months, the surgical practice of a recognised hospital in London, Dublin, Edinburgh, Glasgow, or Aberdeen; or

for six months in any one of such hospitals, and twelve months in any recognised provincial hospital

II. Members and Licentiates in Surgery of any legally constituted College of Surgeons in the United Kingdom, and Graduates in Surgery of any University requiring residence to obtain Degrees, will be admitted for examination on producing their Diploma, License, or Degree, together with proofs of being twenty-two years of age, and of having been occupied five years in the acquirement of professional knowledge.

N.B.—Certificates will not be recognised from any hospital unless the surgeons thereto, or a majority of them, be members of one of the legally constituted Colleges of Surgeons in the United Kingdom; nor from any school of Anatomy, Physiology, Surgery, or Midwifery, unless the respective teachers be members of some legally constituted College of Physicians or Surgeons in the United Kingdom.

Certificates will not be received on more than two branches of science from one and the same Lecturer, but Anatomy and Physiology, Demonstrations and Dissections, Materia Medica and Botany, will be respectively considered as one branch of science.

In the Certificates of attendance on Hospital Practice, and on Lectures, the dates of commencement and termination are to be inserted in words at full length.

All the required Certificates are to be delivered at the College ten days before the Candidate can be admitted to Examination.

(By Order of the Council,)

EDMUND BELFOUR, *Sec.*

July 10, 1834.

Few observations are necessary at present upon these regulations. The medical constitution is at this moment in so feverish and precarious a condition, that the Colleges might pause in the issue of their Bulletins or prescriptions, and certainly it is unnecessary to contemplate with a very critical eye, directions and orders which may possibly be shortly over-ruled by the legislature. When we look at the regulations before us, we are struck with their inadequacy to ensure a high amount of surgical attainments. The young man of twenty-two, who has spent only five years in learning his profession, who has dissected for two seasons, walked a hospital for one year, and acquired such a smattering of surgery, physic, chemistry, midwifery, and botany, as the courses of lectures prescribed can confer—may possibly be adapted for a college examination, may probably be possessed of respectable acquirements, but assuredly is fit for little but the former, and cannot pretend to more than the latter. Yet we think that the circumstances to which we have alluded will excuse our pursuing the subject further.

Appended to the regulations is a circular addressed to lecturers, which conveys a sort of censure on them and on their pupils.

Circular to Lecturers.

SIR,—In consequence of the occasional irregularities that have taken place in the certificates, transmitted to the Court of Examiners of this College, I am directed by the Council to acquaint you, that it is their anxious wish to have some plan devised and adopted by the lecturers at the various medical schools of the United Kingdom whereby the regular attendance of the students on the lectures at such schools may be enforced and registered so as to entitle the students to receive, and to justify the lecturers in giving, certificates of attendance, the accuracy of which may be relied upon by this College, and which the greatest vigilance and circumspection on the part of the lecturers cannot at all times secure under the present system, where there is a want of some such check and registry.

The Council will consider themselves obliged by your attention to their wishes, and will thankfully receive any suggestions you may be pleased to offer on the means which, in the opinion of yourself and your colleagues, may be

best adapted to effect this important object.

I have the honour to be, Sir,
Your most obedient,
Humble servant,
EDMUND BELFOUR, Sec.
July 1, 1834.

It is undoubtedly desirable that certificates of attendance upon lectures should have something like truth to recommend them. It is monstrous that a pupil should have it in his power to absent himself from lectures, and still be entitled to certificates of attendance on them. Yet surely the facility and the frequency of this practice form a biting commentary on the College examinations, "or the "recognized" lectures. For our own parts, we almost think that theCollege might have spared itself the trouble of the circular. Were its own examinations searching, it would signify little what lectures the student had attended or had slurred. Under the expectation of a strict ordeal he must and he would repair to the sources of real information, the dissecting room, the hospital, or the lecture. And if the ordeal is not severe the Council of the College may be well assured that their ingenuity will be frustrated by the stronger motives of pleasure, of indolence, or of disgust. Where the lecturer is calculated to convey instruction, his benches are comparatively seldom empty.

PROVINCIAL MEDICAL SCHOOLS.

James Collins, M.D. of Liverpool, has written a long letter in the Medical Gazette, avowedly for the purpose of exposing Provincial Schools of Medicine, and evidently with the view of satirizing a large class of his provincial brethren. We shall not attempt to analyze the motives of this letter-writing gentleman—we will not pronounce upon the taste, the candour, the professional conduct, or the gentlemanly feeling which characterize the remarkable production. The fearless *delator* of the wrong doings of his neighbours is doubtless immaculate himself—is unquestionably free from those sentiments of envy, hatred and uncharitableness, which too often embitter the observation of success in which we are prevented from participating—is certainly actuated by zeal for the profession, and an ardent desire for the interests of science.

Yet the following picture might seem to display the exaggeration of the satirist, with some of his ill-nature. It is in colours such as these, that Dr. Collins depicts the rise and the progress of the surgeons and physicians of Liverpool.

"The pratice usually is, for those beginning to settle, to remain for some time unattached to any particular sect or party, and to observe in silence how the wind may blow, and how others got on before them. In the interim they are not idle; they are active in extending their acquaintances, and by pliancy of character fitting themselves for whatever may turn up, or for any vacancy in this or that congregation. Whatever people may say of the usual want of religion in medical men, here they are remarkably edifying. Some of them preach, pray, and assist as regular stewards of the vineyard, by word and example. Some read the service of their church in the streets on Sunday, as they pass along in their carriages or gigs, intimating thereby that they have not time for attendance at their church or chapel; others are very conspicuous leaders of class meetings; and many of them pray with their patients as regularly as they visit them, and hold prayer meetings at their own houses for them and others. In fact, few towns present such an inctructive and edifying example as Liverpool. Here all sects have their favourite physician and surgeon; church and chapel differ little in this respect. Here every thing connected with religion or morals, bible and missionary meetings, temperance and providence societies, tract and religious associations, readily meet the support and countenance of medical men; and as the labourer is worthy of his hire, they have their reward in increased practice and connexion, or occasionally

in a happy and lucrative matrimonial hit. It is no uncommon thing to see medical men here pass through all sects before they get one that answers. Some have begun their career as unitarians, then turned presbyterians, independents, methodists—in fact every thing before they finally settled down into their present character of high church folk; and I am satisfied would as easily revert again to the point whence they started, had they an interest in doing so. The great advantage to be had in being occasionally a member of different sects, is that acquaintances are made in each, and retained by a little tact and hospitality, no matter into whatever religious denomination you may afterwards pass. Indeed, the success of one of our first surgeons is owing to a calculation and tact of this sort; others have identified themselves at once with the high church and corporation religion of the town, and have generally been the most successful. They embarked at once with the strong party in the days of profligate corporation expenditure and rule, and have kept steady and true to their party and interest."

It may be as Dr. Collins says—his contemporaries may be calculating, pale-faced hypocrites, Cantwells who preach and purloin at the same instant —this may be true, most strictly true —but the question will arise, is Dr. Collins justified in publicly announcing it? The honourable reader may inquire what right Dr. Collins can claim to the office of censor—why *he* should step forward to denounce his brethren as rogues and vagabonds. Yes, as rogues and vagabonds—perjurers who might experience and would merit the vengeance of the law. That the accusation is so gross is evident from a passage we proceed to quote.

"Others, again, stick their advertisements of lecturing in the medical library, the shops, the newspapers, and other places of notoriety, without giving or intending a lecture. In fact, this custom is getting very much into vogue: I wish it were more general, as, however quackish it may be, it can never injure the profession like the free-school system. The lecturers, when reproached with admitting persons to their lectures who never pay, though able to pay, say they do no harm, as they never give certificates of attendance without being paid. This may be so, for aught I know; but there was one gentleman, now deceased, in the habit of giving certificates of attendance on lectures he never delivered: he differed from others, inasmuch as he got paid for lectures he never gave. Even in his last sickness, a few hours before his death, for the sake of the money, and to oblige a friend, he put his name to one of those fictitious certificates; and yet he was a *respectable* man, a graduate of Cambridge, and a man of very considerable property."

If Dr. Collins has already gone so far, he may possibly be asked to proceed a little farther—to name the criminal he has so darkly painted. We can scarcely believe that any man would venture to manufacture false certificates in open day, as the culprit to whom Dr. Collins has alluded, must of course have done.

It is evident that the letter is of such a nature, as to render a rejoinder on the part of some member of the schools of Liverpool absolutely necessary. That it will have received an answer, of some kind, before the present notice is published, we can entertain but little doubt; and we should not be surprised, if in the heat of warfare, Dr. Collins experiences some ugly wounds. His antagonists may possibly employ the poisoned weapon he has used himself and attack his motives, his character, and reputation. Strong in the consciousness of ill-natured truth, Dr. Collins may perhaps repel the assault.

Our business is not so much with Dr. Collins and his brethren, as with the question of permitting medical education to be exclusively provincial.—There is much to be said upon both sides, but looking at the subject as dispassionately as possible, we are decidedly averse to such permission being granted. Whatever may be the talents, whatever the assiduity of provincial surgeons and physicians, their metropolitan brethren must always pos-

sess more extensive opportunities of becoming thoroughly acquainted with a science, which, in its practical application, is essentially founded on experience. Perhaps this is more strictly true of surgery than physic. The London surgeon in extensive practice *must* see and do much more than his provincial brother. The numbers of patients who repair from the country to London for medical advice, are the means of affording valuable information to those whom they consult.

Independent of the value of London tuition, the variety is advantageous. Were successive generations of provincial practitioners to be born, bred, educated, and established in the same county or town, we think there can be little question that the race would not thrive. The breed must be crossed in the moral world as in the animal, in order to prevent degeneration. Is there a provincial surgeon, possessed of means and ambitious of distinction, who would not voluntarily assist or complete his professional education in London? We venture to say that all would who could, and what common sense and self-interest would prompt for the benefit of one, must be equally adapted for the advantage of the many.

But the most important argument remains behind. It may be granted that no real scientific improvement results from attendance on the lecturers in London—that the country teachers are adapted for their office, yet still it would admit of more than doubt, if increased facilities and diminished expence to the student of medicine are really calculated to benefit the profession.

In the present constitution of society, what the world calls respectability is essential to the interests of classes as of individuals. That respectability may possibly be measured by a vicious standard—and general education, some degree of property, and gentlemanly manners, may not be the best tests of professional capacity. But, till the world is altered for the better, we must take it as it is; and, without interfering with the Owenites or St. Simonians, or any other order of philosophical philanthropists, we must, we are afraid, accommodate ourselves to circumstances. Now, the public complain that we are not on a par, in point of respectability, with the kindred professions of divinity and law. Those professions have more volunteers from the upper classes, they take the best men from the schools and the universities. If we render our education cheaper, our degrees more accessible than they are at present, we offer a bounty for the services of low-born, ill-bred recruits, who will swamp us by their numbers, and degrade us by their characters.

The object of the legislator and the friend to the profession should be to enhance its real respectability. This can only be done by thinning its numbers, and augmenting the acquirements of its members. It will not be effected by sending cryers to the lanes and highways, and bidding every beggar to the feast. If our College examinations were extremely rigid, instead of being, as they are, extremely lax—if the age of the candidate were required to be greater than it is at present—if some efficient guarantee were obtained for a *good* preliminary education—then we might be tempted to assent to the doctrine that it matters nothing where the actual knowledge is procured. But the present checks on the admission of unworthy persons are so slight, that we cannot afford to spare one.

BARONETCY OF MR. BRODIE.

The newspapers and the weekly medical journals will probably have informed the great majority of our readers, that his Majesty has been pleased to confer on Mr. Brodie the honor of the Baronetcy. Sir Benjamin Collins Brodie, for that is the present title of this eminent surgeon, has honorably merited this mark of the favour and discernment of his sovereign. The laurel-wreath was already on the brow; it has been merely gilt.

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OR,

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1. A new system of Organic Chemistry, translated from the French of F. V. Raspail, with Notes and Additions. By WILLIAM HENDERSON, M. D. Lecturer on Materia Medica in the University of Aberdeen, 8vo. pp. 602, with numerous plates, June 1834.

2. A practical Treatise on the Diseases of the Uterus and its Appendages; translated from the French of Madame Veuve Boivin, Sage-femme Surveillante en Chef de la Maison de Santé, &c. and A Dugés, Professeur a la Faculté de Medicine de Montpellier, with copious Notes. By G. O. HEMING, F.L.S. Consulting Accoucheur to the St. Pancras Infirmary, &c. Two volumes 8vo. (one of them plates), pp. 560. Lond. 1834. 14s. and 12s. boards.

3. Anatomie Pathologique du Corps Humain, &c. Par M. CRUVEILHIER. 19th Livraison, Maladies du Foie, de la Rate, et du Grand Epiploon, &c. Bailliere, July, 1834.

4. Chemical Recreations:—a Series of amusing and instructive Experiments, which may be performed with ease, safety, success and economy. To which is added, The Romance of Chemistry, an Inquiry into the Fallacies of the prevailing Theory of Chemistry, &c. By JOHN JOSEPH GRIFFIN. Small 8vo. pp. 372, with numerous woodcuts; 7th edition, entirely re-written. Glasgow, June, 1834.

5. A practical Treatise on Medical Jurisprudence, with so much of Anatomy, Physiology, Pathology, and the Practice of Medicine, as are essential to be known by Members of Parliament, Lawyers, Coroners, Magistrates, Officers in the Army and Navy, and private Gentlemen; and all the Laws relating to Medical Practitioners: with explanatory plates. By J. CHITTY, Esq. Barrister at Law. Part I. royal 8vo, pp. 466, with Index, price One Guinea. Butterworth, London, July, 1834.

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10. Illustrations of the Natural History of Worcestershire, with information on the Statistics, Zoology and Geology of the County; including also, A short Account of the Mineral Waters. By CHARLES HASTINGS, M.D. 8vo, pp. 181, with Appendices, Maps, &c. Sherwood and Co. July, 1834.

11. An Essay on the Relation of the Theory of Morals to Insanity. By T. MAYO, Fellow of the Royal College of Physicians.

12. Some Observations on the Preparation and Medicinal Employment of the Ioduret and Hydriodate of Iron. By A. T. THOMSON, M.D. &c. 8vo. pp. 64, sewed. July, 1834.

13. A Synoptical View of the Diseases of the Chest, as illustrated either by Auscultation, Percussion, Thoracic Measurement, and Succussion; or by other Sources of Information. By RICHARD MADDOCK HAWLEY, M.D. Fellow of the Royal College of Physicians, Ed. &c. Atlas, pp. 6. 1834.

☞ *This is the most scientific and accurate auscultic Chart that has yet appeared. It will prove very useful to stethoscopic students and practitioners.*

14. The Principles of Physiology applied to the Preservation of Health, &c. &c. By AND. COMBE, M.D. Second edit. enlarged. 1834.

☞ *We are very glad to observe that that the first edition was exhausted in three or four months. This edition is greatly improved.*

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15. A Dictionary of Terms, employed by the French, in Anatomy, Physiology, Pathology, Practice, &c. with their derivations from the Greek and Latin, their Synonimes, &c. By SHIRLEY PALMER, M.D. Part I. pp. (no pages), royal 8vo, double column. July, 1834. Price 6s.

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17. Fragmenta de Viribus Medicamentorum positivis, sive in Sano Corpore Humano observatis. A SAMUELE HAHNEMAN, M.D. &c. Edidit F. F. QUIN, M.D. Medicus Ordinarius Leopoldi Primi Regis Belgarum, &c. 8vo, pp. 214. Londini, 1834.

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18. A Series of Anatomical Plates, in Lithography, &c. Edited by JONES QUAIN, M.D. Professor of Anatomy and Physiology in the University of London. Division I. —Muscles. Fasciculi I. to XIV. Price Two shillings each Fasciculus.

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19. An Explanation of the Causes why Vaccination has sometimes failed to prevent Small Pox, and also a Description of a Method, confirmed by Experience, of obviating such Causes. By EDWARD LEESE, &c. Part the Second. Octavo, stitched, pp. 36. London, 1833.

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20. A Collection of Geological Facts and Observations, intended to elucidate the Formation of the Ashby Coal-field, in the parish of Ashby-de-la-Zouch, and the neighbouring District; being the Result of Forty Years' Experience. By EDWARD MAMMATT, F.G.S. Illustrated by a Map and Profiles, coloured Sections of the Stratification, and 102 Plates of Vegetable Fossils, after Drawings taken from Nature. Royal 4to. Ashby-de-la-Zouch and London, 1834.

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☞ *An eloquent and classical Oration.*

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24. The American Journal of the Medical Sciences. Nos. XXVI. and XXVII. For February and May, 1834.

25. A Demonstration of the Nerves of the Human Body. By JOSEPH SWAN. Quarto, pp. 82. Plates, XXV.

☞ *A notice of this in the Periscope.*

26. Memoir of the Life and Medical Opinions of JOHN ARMSTRONG, M.D. Formerly Physician to the Fever Institution of London, &c. To which is added, an Inquiry into the Facts connected with those Forms of Fever attributed to Malaria or Marsh Effluvium. By FRANCIS BOOTT, M.D. &c. In Two Volumes. Vol. II. Octavo, pp. 752. London, 1834.

27. The Principles and Practice of Obstetric Medicine, &c. By DAVID D. DAVIS, M.D. &c. Parts XXX. to XXXV. inclusive. Price two shillings each part.

☞ *To be noticed.*

28. Ossa Humana. Plate V. Price 5s.

☞ *The object of the Author of these Plates, Mr. Cummin, a pupil of St. George's Hospital, is to display the Anatomy of the Human Bones, in a series of lithographic plates. There willl be four parts, each at the price of five shillings. This the third. The lithography is pretty.*

29. The Dublin Practice of Midwifery. By HENRY MAUNSELL, M.D. &c. 12mo, pp. 244. London, 1834.

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☞ *Noticed in the Periscope.*

31. A Treatise on that Affection of the Joints denominated Arthritis or Gout. By LEWIS LEESE, M.D. M.R.C.S. &c. Octavo, Stitched, pp. 48. London, 1834.

32. The Substance of a Lecture delivered at the Re-opening of the School founded by the late Joshua Brooks, Esq. By THOMAS KING, M. D. &c. Octavo, stitched, pp. 31. London, 1834.

☞ *A well-timed and well-written discourse, much superior to the generality of "Introductories."*

33. A Treatise, Practical and Theoretical, on the Nature of Cholera, with an Examination of the Moral and Physical Influence of the Doctrine of Contagion. By STEPHEN BROUGHAM, M. R. C. S. L. Falmouth, &c. Small 8vo. pp. 111. London, 1834.

LITHOTRITY.

Mr. COSTELLO has been successful in comminuting a stone of extraordinary dimensions in his own institution. The calculus, when held in the instrument, measured three inches and a quarter in its long axis, and two inches three quarters in its smallest diameter. It was of fawn-coloured lithate of ammonia and hard. It was computed that one-third of the fragments was lost, as the patient collected only those which he voided during the night and morning—the rest of the day he generally spent in walking about town. The portion collected was weighed at Savory's, Bond Street, and amounted to five ounces two drachms. If to this be added the weight of the third computed to be lost, we shall have a concretion weighing seven ounces, removed by lithotrity from a living man. This is certainly a splendid result. Mr. Costello stated, that had he not devised the double slide percussor, which has no limit to its grasping power, it would have been vain to attempt seizing such a mass by any other instrument. He ridiculed the idea of reducing not only this stone, but one of any considerable size and compactness by screw force. The patient's age was sixty-four, and he had laboured under his complaint upwards of five and twenty years.

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